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MEMORANDUM FOR

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From:

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Subject:

Evaluation of Census 2000 Dress Rehearsal Mail Return Rates

This memorandum contains the Evaluation of Census 2000 Dress Rehearsal Mail Return Rates. This memorandum documents mail return rates from the dress rehearsal sites in Sacramento, California; Columbia, South Carolina; and Menominee, Wisconsin. The mail return rate, which is defined within, measures respondent cooperation according to the check-in data registered at the National Processing Center in Jeffersonville, Indiana. The mail return rate only accounts for housing units that were assigned to receive and mailback questionnaire and had a final status of occupied on the Estimated Census Edited File (ECEF). Rates are presented for the entire sites as well as at the census tract level. Also included are analyses according to check-in date, a comparison of return rates and response rates at the site and tract levels, and a summary of return rates by certain household data. If you have any questions, please do not hesitate to contact Rob Dimitri at (301) 457-8026.

Attachments

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Section 1. Background

1.1 Data Collection Methodology

During the Census 2000 Dress Rehearsal, we tested two primary data collection methodologies planned for use in Census 2000--mailout/mailback and update/leave. The Sacramento test site, a large urban site, was entirely mailout/mailback. The 11-county site in South Carolina, which included the city of Columbia, allowed us to test the two data collection methodologies in one site. About 79 percent of the addresses in this site used the mailout/mailback methodology. The remainder of the South Carolina site and the entire Menominee site used the update/leave data collection methodology.

1.1.1 Mailout/Mailback

In mailout/mailback areas, households received all questionnaires and related materials by mail and returned completed questionnaires through the mail. All mailing pieces were mailed using first-class postage. Mailing pieces that the U. S. Postal Service (USPS) was unable to deliver were returned with the reason for the undeliverability annotated on the mailing piece. We called these undeliverable mailing pieces "undeliverable as addressed" or UAA. Households were asked to return their completed questionnaire in the first-class, postage-paid return envelope provided with the questionnaire.

During the dress rehearsal in mailout/mailback areas, all addresses received an advance notice letter, an initial questionnaire, a reminder post card, and a replacement questionnaire, in that order. The initial questionnaire arrived at all households in the mailout/mailback universe about two and one half weeks prior to Census Day (April 18). A replacement questionnaire was mailed to all households just before Census Day, regardless of whether the household responded to the initial questionnaire. Also, in certain targeted tracts in Sacramento, respondents received two questionnaires in the envelope for each mailing - one in English and one in either Spanish or Chinese, depending on the tract.

1.1.2 Update/Leave

In update/leave areas, census enumerators delivered questionnaires to housing units while updating the Decennial Master Address File (DMAF). The enumerators asked household members to complete and return questionnaires to the Census Bureau, using the first-class, postage-paid return envelope. In ZIP Codes in South Carolina that included only update/leave addresses, the USPS delivered an advance notice and reminder post card, addressed to "postal patron" using third-class postage. The update/leave addresses in ZIP Codes that included both mailout/mailback and update/leave addresses did not receive an advance letter or reminder post card.

1.2 The Long Form Sample

About one in every six housing units received a long form questionnaire in Sacramento and South Carolina. In Menominee the long form questionnaire was delivered to approximately one in every eight housing units. The long form questionnaire contained additional housing unit and person questions. Compared to the short form questionnaire, there were 20 additional housing unit questions and 26 additional person questions.

1.3 Questionnaires

1.3.1 Mailout/Mailback

All housing units in the mailout/mailback portion of the test (all of the city of Sacramento and 79 percent of the South Carolina Site) were mailed one or more of the following self-enumeration questionnaires:

- DX-1, Short-form Questionnaire (English)
- DX-1(S), Short-form Questionnaire (Spanish)
- DX-1(C), Short-form Questionnaire (Chinese)
- DX-2, Long-form Questionnaire (English)
- DX-2(S), Long-form Questionnaire (Spanish)
- DS-2(C), Long-form Questionnaire (Chinese)

In all cases, the housing units were mailed the designated form, short or long, written in English. In targeted areas in Sacramento, the housing units also received the appropriate form (short or long) written in Spanish or Chinese. Whichever forms the housing units received during the first mailing, they received again at the time of replacement mailing. The mailout/mailback portion of South Carolina only received English forms.

1.3.2 Update/Leave

Enumerators delivered one of the following questionnaires to all housing units in the update/leave areas of the dress rehearsal (about 21 percent of the addresses in the South Carolina site and all of the addresses on the Menominee Reservation):

- DX-1(UL), Short-form Update/Leave Questionnaire (English)
- DX-2(UL), Long-form Update/Leave Questionnaire (English)

If the enumerator found a housing unit that did not appear on the address list, he or she visited the housing unit, collected the address information, entered it on blank listing pages, and left one of the following forms at the housing unit:

- DX-1A(UL), Short-form Update/Leave Questionnaire for Adds (English)
- DX-2A(UL), Long-form Update/Leave Questionnaire for Adds (English)

The Field Division enumerators delivered Spanish mailout/mailback forms in the following blocks in the South Carolina test site:

<u>County</u>	<u>Block</u>
Chester	2166
Chesterfield	3672
Chesterfield	3805A

1.4 Implementation Plan

1.4.1 Mailout/Mailback (Sacramento and Whole Mailout/Mailback ZIP Codes in South Carolina)

The USPS delivered the following mailing pieces as the schedule shows below:

<u>Mailing Piece</u>	<u>Delivery Date</u>
Advance Notice	3/25-27/98
Initial Questionnaire [DX-1, 1(S), 1(C), or DX-2, 2(S), 2(C)]	3/28-31/98
Reminder Post Card	4/03-05/98
Replacement Questionnaire [DX-1, 1(S), 1(C), or DX-2, 2(S), 2(C)]	4/15-17/98
<i>Census Day</i>	4/18/98

1.4.2 Update/Leave (Menominee and Certain ZIP Codes in South Carolina)

1.4.2.1 ZIP Code is entirely update/leave:

<u>Mailing Piece</u>	<u>Delivery Date</u>
Advance Notice [DX-5(L), 5(L)(S), 5(L)(C)]	3/09-13/98
Initial Questionnaire [DX-1, 1(S), 1(C), or DX-2, 2(S), 2(C)]	3/14-4/10/98
Reminder Post Card [DX-9, 9(S), 9(C)]	4/07-11/98
<i>Census Day</i>	4/18/98

1.4.2.2 ZIP Code is a mix of update/leave and mailout/mailback

Mailout/Mailback addresses received all materials listed under mailout/mailback above. Census enumerators delivered questionnaires to update/leave addresses between March 14 and April 10, 1998. The update/leave addresses in these ZIP Codes did not receive an advance letter or reminder post card.

1.5 Nonresponse Followup (NRFU)

The NRFU operation was set to occur from May 14 - June 26, 1998 in Sacramento and Menominee. It was intended to run for an additional two weeks in South Carolina (end date of July 10).

Section 2. Methodology

2.1 Definition of the Mail Return Rate

The mail return rate tells us how many housing units in the mailback universe that were classified with a final status of occupied on the Estimated Census Edited File (ECEP) returned a questionnaire by mail. The mailback universe includes those housing units that were mailed a questionnaire (mailout/mailback) and those where the enumerator delivered a questionnaire (update/leave). Define MR_t as the final mail return rate for site t , where $t = 1$ (Sacramento), 2 (mailout/mailback portion of South Carolina), 3 (update/leave portion of South Carolina), or 4 (Menominee). In addition, we calculate a short form and long form mail response rate ($h=1$ for the short form and $h=2$ for the long form). Therefore, $MR_{ht} = X_{ht} / Y_{ht} * 100$, where

X_{ht} = Number of housing units in the mailback universe with a final status of occupied for which a “nonblank” questionnaire was returned by mail. Blank questionnaires returned by mail are included if they did not get checked out before the NRFU universe was defined. A housing unit was counted as being in the numerator for a return rate if it had a check-in date of May 7 (the late cut for definition of the NRFU universe) or earlier. Since check-in date for a questionnaire was the determining factor, some units were counted toward successful mail response but were in fact part of the NRFU universe. Responses received via Telephone Questionnaire Assistance (TQA) or Be Counted Forms (BCF) are not included.

Y_{ht} = Number of housing units in the mailout/mailback or update/leave universe that had a final status of occupied, either by direct (mail and enumerator returns) or estimated classification. Units which were added too late for mail or for which the followup universes were not set were not included.

Note that - unlike the mail response rate - the mail return rate does account for households that were unlikely or unable to respond because they were vacant or nonexistent housing units on Census Day. Those housing units are not included in the denominator for the mail return rate. Also unlike the mail response rate, housing units that had an undeliverable status and did not have an occupied final status are excluded from the mail return rate’s denominator. However, housing units with an undeliverable status that did have an occupied final status are included in the mail return rate’s denominator. Consequently, a high undeliverability rate to occupied housing units would be reflected in an area’s mail return rate.

For a more detailed description of the mail return and response rates, see Reference 2. For more details about dress rehearsal response rate analysis, see Reference 1.

2.2 Questions to Be answered

2.2.1 When did occupied housing units return completed questionnaires?

During this test, housing units in mailout/mailback areas received their initial questionnaire between March 28 and March 31, 1998, and were asked to complete the information about household members living there on April 18. The replacement questionnaires were mailed between April 15 and 17. Those housing units which are classified as update/leave received their questionnaire between March 14 and April 10, 1998. Data from the U.S. 2000 Census Test show that most questionnaires are returned within two weeks of mailout (see Reference 3).

Included in this document are charts of the daily check-in rates by site and by type of form (short and long). For the South Carolina site, we graphed the pattern of receipt for update/leave forms according to check-in date separately from the mailout/mailback forms. For this analysis, we use check-in date from the data file to graph the first form returned by the household, regardless of whether the form received was an initial or replacement questionnaire.

2.2.2 How do the dress rehearsal return rates compare with the dress rehearsal response rates for each site and within each site by census tract?

Since return rates only account for occupied housing units, we expect them to be higher than the response rates. Also, return rates provide a better description of the success of the dress rehearsal since we are primarily interested in enumerating housing units that did in fact have an occupied status on Census Day. Tracts with relatively higher rates of vacant and deleted housing units will show greater improvement between the response rates and the return rates. This document includes tables describing the differential between the return rates and the response rates for each site overall and according to division of each site by tract.

2.2.3 What were the return rates according to tenure, number of household members, Hispanic origin of the householder, and race of the householder?

We wish to document mailback return rates for occupied housing units according to these categories and determine if return rates were higher or lower for certain categories.

Section 3. Limitations

The results from this evaluation cannot be generalized to any area beyond the dress rehearsal sites. This evaluation provides operational data. It does not provide an assessment of the quality of mail return data beyond looking at when the questionnaire was returned in the mailback process.

Response status in this evaluation is based on check-in by the National Processing Center (NPC) staff rather than the date that the form was actually completed. Therefore, time lags in mail delivery from dress rehearsal sites to Indiana and the timing of shifts for check-in impact the check-in date information. Also, processing and USPS delays could both be factors to different degrees in different areas.

The check-in of questionnaires at the NPC temporarily ceased on Friday, April 10. This was probably to allow for software installation. Check-in resumed on Monday, April 13. As a result, the check-in pattern around that time could have been affected.

Questionnaires were received by respondents in the Sacramento site as early as March 24. The scheduled delivery dates were March 28-31.

It also appears that the advance letters were delivered a few days earlier than scheduled in the Sacramento test site.

About 700 Chinese long form replacement questionnaires were mailed on March 26 in Sacramento. The scheduled dates were April 15-17.

Two counties in South Carolina--Chester City and Lancaster County--have undergone address system renumbering that was not reflected in the DMAF, the Master Address File (MAF), or the Census geographic database - the Topologically Integrated Geographic Encoding and Referencing (TIGER). This renumbering corresponded to between 2,000 and 3,000 questionnaires. The USPS returned most questionnaires as undeliverable in Lancaster County. Pseudo tract mail response rates ranged from 23 to 53 percent in Chester City which means the USPS was able to deliver some portion of the questionnaires.

There were also about 2,000 questionnaires returned in Sacramento because they had bad labels and could not be delivered. A decision was made on April 21 to create new mailing packages with correct labels for these cases and mail them out.

Section 4. Results

4.1 Basic Return Rates for Dress Rehearsal Sites

Table 1. Dress Rehearsal Overall Mail Return Rates

	Short Form	Long Form	Overall
Sacramento	80,422 out of 127,514 (63.1%)	11,423 out of 23,949 (47.7%)	91,845 out of 151,463 (60.6%)
South Carolina Mailout/Mailback	106,635 out of 159,866 (66.7%)	16,321 out of 30,007 (54.4%)	122,956 out of 189,873 (64.8%)
South Carolina Update/Leave	25,204 out of 43,814 (57.5%)	3,929 out of 9,027 (43.5%)	29,133 out of 52,841 (55.1%)
South Carolina Total	131,849 out of 203,696 (64.7%)	20,251 out of 39,035 (51.9%)	152,100 out of 242,731 (62.7%)
Menominee	664 out of 1,124 (59.1%)	87 out of 180 (48.3%)	751 out of 1,304 (57.6%)

Table 1 demonstrates that across all sites the short form return rate was ten to sixteen percentage points higher than the long form return rate. Menominee represents the lower end of that spectrum with a difference of 10.8 percentage points. Table 1 also illustrates that return rates in mailout/mailback areas were higher than the return rates in update/leave areas.

Of the 91,845 Sacramento housing units counted toward the mail return rate (that is, corresponding questionnaires were checked in by May 7), 4,450 (4.8 percent) were flagged as having entered the NRFU universe. There were 69 (0.08 percent) housing units flagged as having entered the UAA vacant followup universe. A large majority of these housing units were checked in between the initial cut for NRFU (April 29) and the late cut (May 7) and were subsequently designated for removal from the NRFU operation. This document does not address the success of removing these housing units from NRFU.

In mailout/mailback areas of South Carolina, 4,320 of the 122,956 (3.5 percent) housing units that had a questionnaire checked in by May 7 were flagged as being part of the NRFU universe. Thirty-three (0.03 percent) were flagged as having entered the UAA vacant followup universe. In South Carolina update/leave areas, 784 of the 29,133 (2.7 percent) housing units that had a questionnaire checked in by May 7 were flagged as being part of the NRFU universe. All of the update/leave housing units were flagged as not being part of the UAA vacant universe, which of course makes sense since the questionnaires were not delivered by the USPS. A large majority of these housing

units were checked in between the initial cut for NRFU (April 29) and the late cut (May 7) and were subsequently designated for removal from the NRFU operation. This document does not address the success of removing these housing units from NRFU.

Twenty of the 751 (2.7 percent) Menominee housing units that had a questionnaire check-in date by May 7 were flagged as having entered the NRFU universe. As Menominee was an update/leave enumeration area, there were no UAA vacant housing units. A large majority of these housing units were checked in between the initial cut for NRFU (April 29) and the late cut (May 7) and were subsequently designated for removal from the NRFU operation. This document does not address the success of removing these housing units from NRFU.

4.2 Results from Questions to Be Answered

4.2.1 Pattern of Receipt for Mailback Forms from Occupied Housing Units

The patterns of receipt according to check-in date are somewhat limited. There might have been some delay in processing forms at the beginning of the operation which could have created a backlog of work. It also appears that backlogs were created regularly on weekends and holidays. Therefore, forms that were received at the NPC do not have check-in dates completely reflective of the pattern of questionnaire completion by respondents.

Included in Appendix A are charts showing the pattern of receipt of questionnaires from occupied housing units for Sacramento, South Carolina mailout/mailback areas, South Carolina update/leave areas, and Menominee. Receipt refers only to the first check-in date for a housing unit. Hence, each housing unit can only be counted once in any given chart. These are divided according to short form, long form, and a combination of both. Each category includes a chart detailing the number of forms checked in by date (Charts 1, 3, 5,...55) and a chart depicting that category's check-ins as a cumulative percentage of the appropriate universe (Charts 2, 4, 6,...56). Also included for informational purposes are the patterns of receipt of questionnaires after the late mail return cut (May 8 and beyond) for the four different site/enumeration area combinations. Table 2 describes the organization of the charts according to category and page number within this evaluation.

Table 2. Organization of Charts Detailing Pattern of Receipt for Mailback Questionnaires

	Sacramento		South Carolina Mailout		South Carolina Update/Leave		Menominee	
	Chart	Page	Chart	Page	Chart	Page	Chart	Page
Daily Check-In Counts								
Short Form	1	A-1	9	A-5	17	A-9	25	A-13
Long Form	3	A-2	11	A-6	19	A-10	27	A-14
Total	5	A-3	13	A-7	21	A-11	29	A-15
Late Mail Returns	7	A-4	15	A-8	23	A-12	31	A-16
Cumulative Mail Return Rates								
Short Form	2	A-1	10	A-5	18	A-9	26	A-13
Long Form	4	A-2	12	A-6	20	A-10	28	A-14
Total	6	A-3	14	A-7	22	A-11	30	A-15
Late Mail Returns	8	A-4	16	A-8	24	A-12	32	A-16

By April 18 in the entirely mailout/mailback site of Sacramento, questionnaires for about 74.9 percent (68,821 of 91,845) of the mail responding occupied housing unit universe had already been checked in. Charts 2 and 4 indicate that long forms were returned at a slower pace than short forms. In the short form universe, about 76.4 percent (61,411 of 80,422) of the mail respondents had returned forms by April 18, while about 64.9 percent (7410 of 11,423) of the long form mail respondents had returned questionnaires by that point.

In the mailout/mailback portion of the South Carolina site questionnaires for about 73.2 percent (89,991 of 122,956) of the mail responding housing unit universe had already been checked in through April 18. Again similar to Sacramento, Charts 10 and 12 indicate that long forms were returned at a slower pace than short forms were. In the short form universe, about 75.1 percent (80,079 of 106,635) of the mail respondents had returned forms by April 18, while about 60.7 percent (9912 of 16,321) of the long form mail respondents had returned questionnaires by that point.

By April 18 in the update/leave portion of the South Carolina site, questionnaires for about 80.0 percent (23,320 of 29,133) of the mail responding housing unit universe had already been checked in. Charts 18 and 20 indicate that long forms were returned at a slower pace than short forms were. In the short form universe, about 82.8 percent (20,874 of 25,204) of the mail respondents had returned forms

by April 18, while about 62.3 percent (2,446 of 3,929) of the long form mail respondents had returned questionnaires by that point. Also, Chart 19 shows that April 21 saw a peak in daily rates of long form check-in (687 questionnaires).

By April 18 in the entirely update/leave Menominee site, questionnaires for about 79.9 percent (600 of 751) of the mail responding housing unit universe had already been checked in. In Charts 26 and 28 there is an evident trend that long forms were returned at a slower pace than short forms were. In the short form universe, about 81.8 percent (543 of 664) of the mail respondents had returned forms by April 18, while about 65.5 percent (57 of 87) of the long form mail respondents had returned questionnaires by that point. Though it was not the day that saw the largest number of long form questionnaires checked in, Chart 27 shows that April 21 saw a relative high daily rate of long form check-in (12 questionnaires).

Tables 3 through 6 are included simply as another means of presenting the pattern of receipt of questionnaires from occupied housing units. Tables 3 and 4 detail the percent of questionnaires received from Sacramento and the South Carolina mailout/mailback area one week after the delivery of the initial questionnaire (April 4), two weeks after the delivery of the initial questionnaire (April 11), through Census Day (April 18), one week after the delivery of the replacement questionnaire (April 22), and two weeks after the delivery of the replacement questionnaire (April 29). Also included are the percent of questionnaires checked in after the initial cut for NRFU (April 29) and on or before the late cut (May 7), and the percent of the occupied housing unit universe that had a questionnaire checked in with a check-in date of May 8 or later. For the South Carolina update/leave area and Menominee, Tables 5 and 6 detail the percent received through Census Day (April 18), the percent of questionnaires checked in after the initial cut for NRFU (April 29) and on or before the late cut (May 7), and the percent of the housing unit universe that had a questionnaire checked in with a check-in date of May 8 or later.

Table 3. Percent of Questionnaires Checked In at Certain Intervals in Sacramento

	Short Form	Long Form	Overall
through April 4	33604 out of 80422 (41.8%)	2086 out of 11423 (18.3%)	35690 out of 91845 (38.9%)
through April 11	48041 out of 80422 (59.7%)	4754 out of 11423 (41.6%)	52795 out of 91845 (57.5%)
through April 18	61411 out of 80422 (76.4%)	7410 out of 11423 (64.9%)	68821 out of 91845 (74.9%)
through April 22	68922 out of 80422 (85.7%)	8985 out of 11423 (78.7%)	77907 out of 91845 (84.8%)
through April 29	76624 out of 80422 (95.3%)	10738 out of 11423 (94.0%)	87362 out of 91845 (95.1%)
after April 29 and through May 7	3798 out of 80422 (4.7%)	685 out of 11423 (6.0%)	4483 out of 91845 (4.9%)
May 8 or later	4844 out of 127514 (3.8%)	1631 out of 23949 (6.8%)	6475 out of 151463 (4.3%)

In Table 3 all rows but the last represent percentages of respondents from occupied housing units returning their questionnaires by mail over time up to the late cut for NRFU. The last row represents the percentage of the entire occupied mailout/mailback universe. Expanding the denominator is necessary since housing units that had a check-in date of May 8 or later were not part of the defined responding universe. In other words, the last row shows the level of mailback respondents from occupied housing units that were also enumerated during NRFU.

The previously described phenomenon of long forms being returned at a slower rate than short forms is evident in Table 3. For example, through April 4 questionnaires corresponding to 41.8 percent of the short form mail responding occupied housing units had already been checked in, while questionnaires corresponding to 18.3 percent of the long form mail responding occupied housing units had been checked in. The check-in percentage of the long form mail responding occupied housing units continued to lag behind that of the short form mail responding occupied housing units through April 11, April 18, April 22, and April 29. However, the disparity lessened over this span such that it was only 1.3 percentage points through April 29.

Table 3 also demonstrates that immediately after the mailout of the replacement questionnaire (April 15 through April 17) the rate of response between April 18 and April 22 held steady with respect to the two prior weeks. Check-ins from 18.6 percentage points of the mail responding occupied housing unit universe

were registered between April 4 and April 11. Between April 11 and April 18, that figure was 17.4 percentage points. Between April 18 and April 22 (a span of four days as opposed to seven days), that figure was 9.9 percentage points.

The last row of Table 3 demonstrates that 4.3 percent of the mailback occupied universe (3.8 percent of the short form mailback occupied universe and 6.8 percent of the long form mailback occupied universe) in Sacramento returned a questionnaire after the late cut for NRFU and were also enumerated during NRFU.

Table 4. Percent of Questionnaires Checked In at Certain Intervals in Mailout/Mailback Area of South Carolina

	Short Form	Long Form	Overall
through April 4	35,896 out of 106,635 (33.7%)	1,391 out of 16,321 (8.5%)	37,287 out of 122,956 (30.3%)
through April 11	65,690 out of 106,635 (61.6%)	5,932 out of 16,321 (36.3%)	71,622 out of 122,956 (58.3%)
through April 18	80,079 out of 106,635 (75.1%)	9,912 out of 16,321 (60.7%)	89,991 out of 122,956 (73.2%)
through April 22	93,968 out of 106,635 (88.1%)	13,353 out of 16,321 (81.8%)	107,321 out of 122,956 (87.3%)
through April 29	102,950 out of 106,635 (96.5%)	15,692 out of 16,321 (96.1%)	118,642 out of 122,956 (96.5%)
after April 29 and through May 7	3,685 out of 106,635 (3.5%)	629 out of 16,321 (3.9%)	4,314 out of 122,956 (3.5%)
May 8 or later	5,259 out of 159,866 (3.3%)	1,949 out of 30,007 (6.5%)	7,208 out of 189,873 (3.8%)

In Table 4 all rows but the last represent percentages of respondents from occupied housing units returning their questionnaires by mail over time up to the late cut for NRFU. Again, the last row represents the percentage of the occupied mailout/mailback universe. Expanding the denominator is necessary since housing units that had a check-in date of May 8 or later were not part of the defined responding universe. In other words, the last row shows the level of mailback respondents from occupied housing units that were also enumerated during NRFU.

The previously described phenomenon of long forms being returned at a slower rate than short forms is evident in Table 4. For example, through April 4 questionnaires corresponding to 33.7 percent of the short form mail responding occupied housing units had already been checked in, while questionnaires

corresponding to 8.5 percent of the long form mail responding occupied housing units had been checked in. The check-in percentage of the long form mail responding occupied housing units continued to lag behind that of the short form mail responding occupied housing units through April 11, April 18, April 22, and April 29. However, the disparity lessened over this span such that it was only 0.4 percentage points through April 29.

Table 4 also demonstrates that immediately after the mailout of the replacement questionnaire (April 15 through April 17) the rate of response between April 18 and April 22 increased with respect to the decrease of the two prior weeks. Check-ins from 28.0 percentage points of the mail responding occupied housing unit universe were registered between April 4 and April 11. Between April 11 and April 18, that figure was 14.9 percentage points. Between April 18 and April 22 (a span of four days as opposed to seven days), that figure was 14.1 percentage points.

The last row of Table 4 demonstrates that 3.8 percent of the mailback occupied universe (3.3 percent of the short form mailback occupied universe and 6.5 percent of the long form mailback occupied universe) in the South Carolina mailout/mailback areas returned a questionnaire after the late cut for NRFU and were also enumerated during NRFU.

Table 5. Percent of Questionnaires Checked In at Certain Intervals in Update/Leave Area of South Carolina

	Short Form	Long Form	Overall
through April 18	20,874 out of 25,204 (82.8%)	2,446 out of 3,929 (62.3%)	23,320 out of 29,133 (80.0%)
after April 29 and through May 7	647 out of 25,204 (2.6%)	119 out of 3,929 (3.0%)	766 out of 29,133 (2.6%)
May 8 or later	1,190 out of 43,814 (2.7%)	498 out of 9,027 (5.5%)	1,688 out of 52,841 (3.2%)

In Table 5 all rows but the last represent percentages of respondents from occupied housing units returning their questionnaires by mail over time up to the late cut for NRFU. The last row represents the percentage of the occupied update/leave universe. Expanding the denominator is necessary since housing units that had a check-in date of May 8 or later were not part of the defined responding universe. In other words, the last row shows the level of mailback respondents from occupied housing units that were also enumerated during NRFU.

The previously described phenomenon of long forms being returned at a slower rate than short forms is evident in Table 5. Through April 18 questionnaires corresponding to 82.8 percent of the short form mail responding occupied housing units had already been checked in, while questionnaires corresponding to 62.3 percent of the long form mail responding occupied housing units had been checked in.

The last row of Table 5 demonstrates that 3.2 percent of the mailback occupied universe (2.7 percent of the short form mailback occupied universe and 5.5 percent of the long form mailback occupied universe) in the South Carolina update/leave areas returned a questionnaire after the late cut for NRFU and were also enumerated during NRFU.

Table 6. Percent of Questionnaires Checked In at Certain Intervals in Menominee

	Short Form	Long Form	Overall
through April 18	543 out of 664 (81.8%)	57 out of 87 (65.5%)	600 out of 751 (79.9%)
after April 29 and through May 7	16 out of 664 (2.4%)	4 out of 87 (4.6%)	20 out of 751 (2.7%)
May 8 or later	39 out of 1124 (3.5%)	9 out of 180 (5.0%)	48 out of 1,304 (3.7%)

In Table 6 all rows but the last represent percentages of respondents from occupied housing units returning their questionnaires by mail over time up to the late cut for NRFU. Again, the last row represents the percentage of the occupied update/leave universe. Expanding the denominator is necessary since housing units that had a check-in date of May 8 or later were not part of the defined responding universe. In other words, the last row shows the level of mailback respondents from occupied housing units that were also enumerated during NRFU.

Table 6 also demonstrates that long forms were checked in at a slower rate than short forms. Through April 18 questionnaires corresponding to 81.8 percent of the short form mail responding occupied housing units had already been checked in, while questionnaires corresponding to 65.5 percent of the long form mail responding occupied housing units had been checked in.

The last row of Table 6 demonstrates that 3.7 percent of the mailback occupied universe (3.5 percent of the short form mailback occupied universe and 5.0 percent of the long form mailback occupied universe) in Menominee returned a questionnaire after the late cut for NRFU and were also enumerated during NRFU.

4.2.2 Dress Rehearsal Return Rates According to Tract and Compared to Dress Rehearsal Response Rates

Included in Appendix B are tables listing for each tract the number of housing units in the mailback universe, the overall response rate, the number of housing units with a final status of occupied, the overall return rate, and the difference between the overall return rate and overall response rate. There are also tables with these tallies as well as short and long form response and return rates for the entire sites.

Table 11 in Appendix B illustrates that in Sacramento an original mailback universe of 173,483 housing units decreased by 12.7 percent when reduced to a universe containing only the 151,463 housing units with an occupied final status. The overall return rate of 60.6 percent was a 7.6 percentage point improvement compared to the overall response rate of 53.0 percent. The short form return rate was 7.7 percentage points higher than the short form response rate, and the long form return rate was 7.0 percentage points higher than the long form response rate. Hence, the improvement from response rate to return rate was fairly consistent (approximately a one percentage point difference or less) between the two form types.

Table 12 in Appendix B provides details about the response rates and return rates for each of the 103 tracts in the Sacramento site. The average tract size for the original mailback universe was about 1,684 housing units, and the range was from one to 6,567 housing units. If one considers only those housing units with an occupied final status, then the average tract size was approximately 1,471 housing units. The range in tract size for occupied housing units varied from one to 6,065 housing units. Tract response rates varied from 0 percent to 76.0 percent. The average tract response rate was 51.5 percent. Tract return rates varied from 0 percent to 87.1 percent. The average tract return rate was 59.7 percent.

The differential between the tract return rates and the tract response rates varied from 0 percent to 37.9 percent in Sacramento. The tract with no difference between the response rate and return rate was the tract with only one housing unit. The average difference between tract return rate and tract response rate was 8.2 percentage points. Tracts with a lower differential tended to have a higher portion of the original mailback universe with an occupied final status, while those tracts with the greater improvement had relatively fewer housing units with an occupied final status.

Graph 1 below plots the percentage point differences of the Sacramento tract return and response rates against the tract response rates. The graph seems to indicate a negative correlation between response rate and the difference of return rate and response rate. The line that resulted from a linear regression performed upon the two variables in the plot is also included in the graph. However, the linear regression only yielded a value of approximately 0.24 for r^2 . The value r^2 is

a measure of the potential linear correlation between the two variables in question. It ranges in value from zero to one, and values closer to one indicate a stronger possibility for correlation.

Graph 1. Plot of Tract Response and Return Rate Differences vs. Tract Response Rates with Linear Regression Results for Sacramento

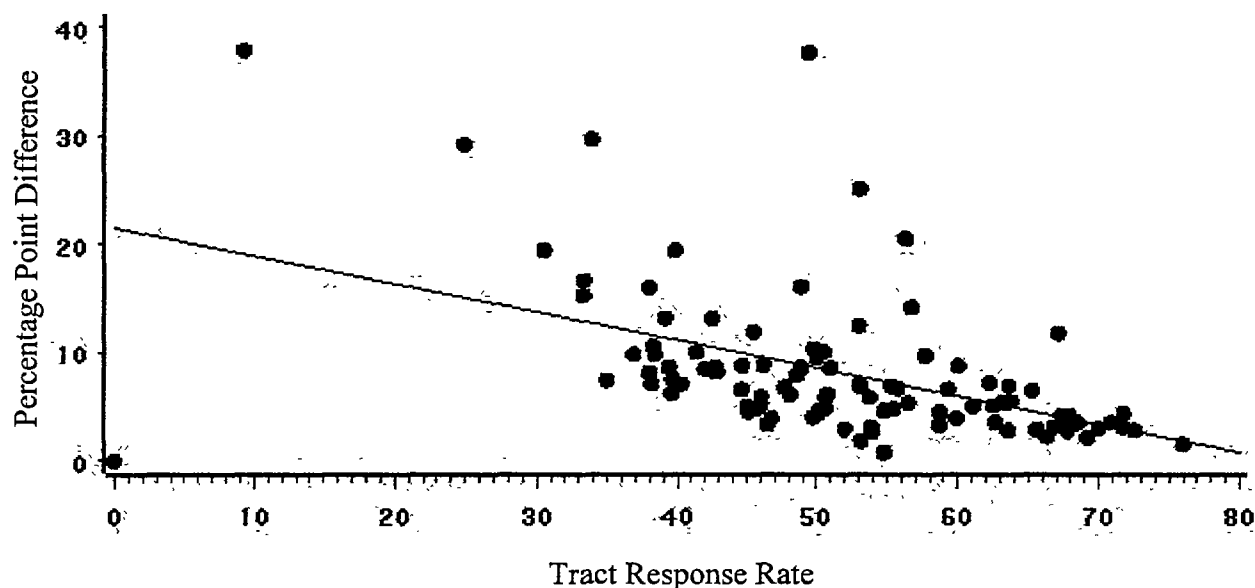


Table 13 in Appendix B illustrates that in the mailout/mailback portion of South Carolina an original mailback universe of 224,009 housing units decreased by 15.2 percent when reduced to a universe containing only the 189,873 housing units with an occupied final status. The overall return rate of 64.8 percent was a 9.8 percentage point improvement compared to the overall response rate of 55.0 percent. The short form return rate was 9.9 percentage points higher than the short form response rate, and the long form return rate was 8.8 percentage points higher than the long form response rate. Hence, the improvement from response rate to return rate was fairly consistent (approximately a one percentage point difference) between the two form types.

Table 14 in Appendix B provides details about the response rates and return rates for each of the 137 tracts in the mailout/mailback South Carolina site. The average tract size for the original mailback universe was about 1,635 housing units, and the range was from eight to 5,027 housing units. If one considers only those housing units with an occupied final status, then the average tract size was approximately 1,386 housing units. The range in tract size for occupied housing units varied from four to 4,511 housing units. Tract response rates varied from 12.5 percent to 76.2 percent. The average tract response rate was 54.0 percent. Tract return rates varied from 25.0 percent to 80.3 percent. The average tract return rate was 63.4 percent.

The differential between the tract return rates and the tract response rates varied from 0 percent to 25.0 percent in the mailout/mailback areas of South Carolina. The tract with no difference between the response rate and return rate was a relatively smaller tract with only ten housing units. The average difference between tract return rate and tract response rate was 9.4 percentage points. Tracts with a lower differential tended to have a higher portion of the original mailback universe with an occupied final status, while those tracts with the greater improvement had relatively fewer housing units with an occupied final status.

Graph 2 below plots the percentage point differences of the South Carolina mailout/mailback tract return and response rates against the tract response rates. The graph seems to indicate a negative correlation between response rate and the difference of return rate and response rate. The line that resulted from a linear regression performed upon the two variables in the plot is also included in the graph. However, the linear regression only yielded a value of approximately 0.37 for r^2 .

Graph 2. Plot of Tract Response and Return Rate Differences vs. Tract Response Rates with Linear Regression Results for Mailout/Mailback Portion of South Carolina

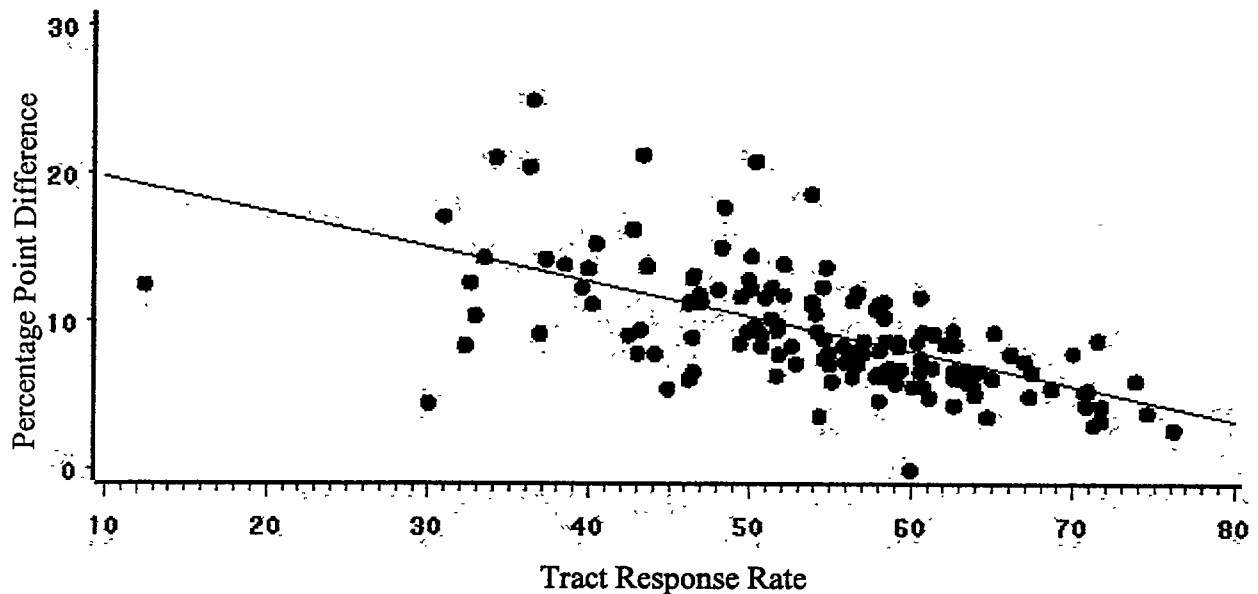


Table 15 in Appendix B illustrates that in the update/leave portion of South Carolina an original mailback universe of 61,218 housing units decreased by 13.7 percent when reduced to a universe containing only the 52,841 housing units with an occupied final status. The overall return rate of 55.1 percent was a 7.3 percentage point improvement compared to the overall response rate of 47.8 percent. The short form return rate was 7.4 percentage points higher than the short form response rate, and the long form return rate was 6.4 percentage points higher than the long form response rate. Hence, the improvement from response rate to return rate was fairly consistent (approximately a one percentage point difference) between the two form types.

Table 16 in Appendix B provides details about the response rates and return rates for each of the 58 tracts in the update/leave South Carolina site. The average tract size for the original mailback universe was about 1,055 housing units, and the range was from 104 to 2,951 housing units. If one considers only those housing units with an occupied final status, then the average tract size was approximately 911 housing units. The range in tract size for occupied housing units varied from 87 to 2,738 housing units. Tract response rates varied from 24.6 percent to 69.2 percent. The average tract response rate was 47.1 percent. Tract return rates varied from 33.3 percent to 72.0 percent. The average tract return rate was

The differential between the tract return rates and the tract response rates varied from 2.5 percent to 40.6 percent in the update/leave areas of South Carolina. The average difference between tract return rate and tract response rate was 7.4 percentage points. Tracts with a lower differential tended to have a higher portion of the original mailback universe with an occupied final status, while those tracts with the greater improvement had relatively fewer housing units with an occupied final status.

Graph 3 below plots the percentage point differences of the South Carolina update/leave tract return and response rates against the tract response rates. Unlike the mailout/mailback areas, there did not seem to be a negative correlation between response rate and the difference of return rate and response rate. This might indicate that there was more variability in the quality of the address list amongst update/leave tracts than there was in mailout/mailback tracts. The line that resulted from a linear regression performed upon the two variables in the plot is also included in the graph. However, the linear regression only yielded a value of approximately 0.13 for r^2 .

Graph 3. Plot of Tract Response and Return Rate Differences vs. Tract Response Rates with Linear Regression Results for Update/Leave Portion of South Carolina

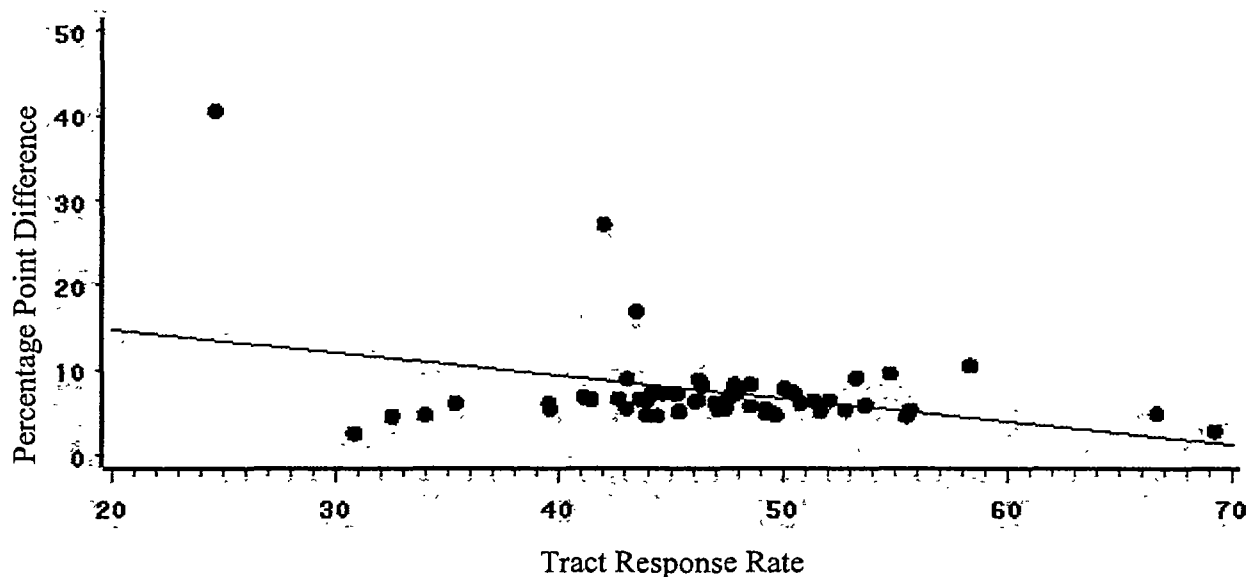


Table 17 in Appendix B illustrates that in Menominee an original mailback universe of 1,964 housing units decreased by 33.6 percent when reduced to a universe containing only the 1,304 housing units with an occupied final status. The overall return rate of 57.6 percent was an 18.2 percentage point improvement compared to the overall response rate of 39.4 percent. The short form return rate was 18.5 percentage points higher than the short form response rate, and the long form return rate was 15.9 percentage points higher than the long form response rate. The improvement from response rate to return rate exhibited an

inconsistency between the two form types that was not observed in Sacramento or South Carolina. This inconsistency is unexplained, but speculatively it could be attributed to Menominee's consisting of only one tract or the different long form sampling scheme that was used in Menominee.

Tract data for the Menominee site is not included since it only consisted of one tract.

4.2.3 Dress Rehearsal Return Rates According to Tenure, Number of Household Members, Householder Hispanic Origin, and Householder Race

Table 7 documents the return rates for the dress rehearsal sites according to housing unit tenure, or whether or not the housing unit is owned by the occupant.

Table 7. Return Rates According to Housing Unit Tenure

Tenure Status	Sacramento	South Carolina Mailout/Mailback	South Carolina Update/Leave	Menominee
Occupant is the Owner (either by Mortgage or Free and Clear)	52972 out of 74909 (70.7%)	89149 out of 124684 (71.5%)	25215 out of 43663 (57.7%)	583 out of 904 (64.5%)
Occupant Does not Claim Ownership (Rents for Cash or Occupies without Payment of Cash Rent)	38873 out of 76554 (50.8%)	33807 out of 65189 (51.9%)	3918 out of 9178 (42.7%)	168 out of 400 (42.0%)
Difference of Return Rates	19.9%	19.6%	15.0%	22.5%

For all site categories, the return rate for housing units owned by the occupants was substantially higher than it was for housing units that did not have ownership claimed by the occupants. This is illustrated in the last row.

Table 8 documents the return rates for the dress rehearsal sites according to the number of occupants (household size).

Table 8. Return Rates According to Number of Household Members

Household Size	Sacramento	South Carolina Mailout/Mailback	South Carolina Update/Leave	Menominee
1 Person	30,588 out of 49,537 (61.7%)	32,958 out of 52,738 (62.5%)	6,286 out of 11,876 (52.9%)	133 out of 215 (61.9%)
2 People	30,453 out of 45,615 (66.8%)	43,110 out of 62,046 (69.5%)	10,534 out of 17,116 (61.5%)	252 out of 379 (66.5%)
3 People	12,541 out of 21,620 (58.0%)	21,701 out of 33,898 (64.0%)	5632 out of 10454 (53.9%)	112 out of 192 (58.3%)
4 People	9,486 out of 16829 (56.4%)	15,965 out of 25,248 (63.2%)	4,181 out of 8,070 (51.8%)	71 out of 159 (44.7%)
5 People	4,462 out of 8992 (49.6%)	6,168 out of 10468 (58.9%)	1,612 out of 3388 (47.6%)	91 out of 173 (52.6%)
6 or More People	4,315 out of 8870 (48.6%)	3,054 out of 5475 (55.8%)	888 out of 1937 (45.8%)	92 out of 186 (49.5%)

Table 8 demonstrates that two person households are the most likely respondents. For all four site categories, this category had the highest return rate. Table 8 also illustrates that dress rehearsal return rates generally decreased as the number of occupants increased.

Table 9 documents the return rates for the dress rehearsal sites according to the Hispanic origin of the householder.

Table 9. Return Rates According to Householder's Hispanic Origin

Hispanic Origin of Householder	Sacramento	South Carolina Mailout/Mailback	South Carolina Update/Leave	Menominee
Not Spanish/Hispanic	80,377 out of 127,771 (62.9%)	121,111 out of 186,522 (64.9%)	28,856 out of 52,336 (55.1%)	738 out of 1,280 (57.7%)
Spaniard	65 out of 95 (68.4%)	8 out of 24 (33.3%)	0 out of 1 (0.0%)	0 out of 0
Mexican	8,858 out of 18,565 (47.7%)	719 out of 1,387 (51.8%)	138 out of 279 (49.5%)	5 out of 13 (38.5%)
Central American	310 out of 488 (63.5%)	82 out of 152 (53.9%)	2 out of 3 (66.7%)	0 out of 0
South American	152 out of 214 (71.0%)	89 out of 129 (69.0%)	3 out of 6 (50.0%)	0 out of 0
Latin American	122 out of 288 (42.4%)	15 out of 33 (45.5%)	1 out of 2 (50.0%)	0 out of 0
Puerto Rican	450 out of 800 (56.3%)	495 out of 803 (61.6%)	54 out of 70 (77.1%)	1 out of 1 (100%)
Cuban	134 out of 279 (48.0%)	127 out of 183 (69.4%)	18 out of 31 (58.1%)	1 out of 1 (100%)
Dominican	5 out of 9 (55.6%)	9 out of 22 (40.9%)	0 out of 1 (0.0%)	0 out of 0
Other Spanish/Hispanic	1,372 out of 2,954 (46.4%)	300 out of 618 (48.5%)	61 out of 112 (54.5%)	6 out of 9 (66.7%)

Return rates did seem to differ according to the householder's Hispanic origin. The categories with the largest counts were "not Spanish/Hispanic" and "Mexican." The return rates for housing units with Mexican householders were lower than the housing units with householders that were not of Hispanic origin. Other categories that had a relatively large housing unit count were "Puerto Rican" and "Other Spanish/Hispanic." In Sacramento and the mailout/mailback portion of South Carolina, the return rates for those housing units were also lower than those of the housing units with householders that were not of Hispanic origin. Note that comparisons based on the numbers in this table should be used with caution due to the small number of housing units in some of the cells.

Table 10 documents the return rates for the dress rehearsal sites according to the race of the householder.

Table 10. Return Rates According to Householder's Race

Race of Householder	Sacramento	South Carolina Mailout/Mailback	South Carolina Update/Leave	Menominee
White	60,274 out of 88,157 (68.4%)	84,116 out of 116,231 (72.4%)	20,812 out of 3,3918 (61.4%)	208 out of 282 (73.8%)
Black or African- American	10,062 out of 21,838 (46.1%)	35,865 out of 68,301 (52.5%)	7,958 out of 18,197 (43.7%)	0 out of 1 (0.0%)
American Indian or Alaska Native	1,048 out of 2,890 (36.3%)	422 out of 698 (60.5%)	137 out of 248 (55.2%)	522 out of 990 (52.7%)
Asian	11,361 out of 17,652 (64.4%)	1,004 out of 1,803 (55.7%)	26 out of 76 (34.2%)	0 out of 0
Native Hawaiian or Other Pacific Islander	327 out of 636 (51.4%)	94 out of 136 (69.1%)	8 out of 17 (47.1%)	0 out of 0
Some Other Race	4,605 out of 12,868 (35.8%)	346 out of 935 (37.0%)	27 out of 94 (28.7%)	0 out of 3 (0.0%)
Multiracial	4,168 out of 7,422 (56.2%)	1,108 out of 1,769 (62.6%)	165 out of 291 (56.7%)	21 out of 28 (75.0%)

As Table 10 demonstrates, for each of the site categories the housing units in the "White" race category had higher return rates than every other race category. (The exception is the "Multiracial" category for Menominee, but that universe consists of a relatively small number of housing units.) Consequently, mail return rates demonstrate the often seen pattern of greater difficulty in counting members of minorities.

Section 5. Conclusions/Recommendations

5.1 When did occupied housing units return completed questionnaires?

The check-in pattern from the majority of respondents from occupied housing units did not imply a tendency to hold questionnaires until Census Day. The majority of forms from all three sites and both types of enumeration areas were checked in prior to April 18 (Census Day). The pattern of check-in for both types of enumeration areas indicates a tendency for long forms to be returned at a slower pace than the short forms.

5.2 How do the dress rehearsal return rates compare with the dress rehearsal response rates for each site and within each site by census tract?

As expected, the return rates were an improvement over the response rates for all of the dress rehearsal sites. Some tracts exhibited higher occupancy rates than others, and further study into the nature of these tracts might lend insight into the rate of vacant or nonexistent housing units and the resulting effect upon the efficiency of the mailback operation.

In mailout/mailback areas, the data seemed to indicate some negative correlation between the difference of tract return rate and response rate and the tract response rate.

5.3 What were the return rates according to tenure, number of household members, Hispanic origin of the householder, and race of the householder?

The return rates according to housing unit tenure demonstrated that across all dress rehearsal sites housing units for which the occupant was the owner had higher return rates than those housing units for which the occupant was not the owner by about 20 percentage points.

Return rates according to the number of occupants indicated that the highest return rates were for two person households and that for households of three people or more return rates generally decreased as the number of occupants increased. Perhaps two adults comprise most of the two person households, and for this reason they have more time for questionnaire completion. This contrasts with the one person household in which the sole occupant must handle all chores alone. It also contrasts with the households of three or more people, which probably include children. An increase in the number of children no doubt equates to less time for questionnaire completion.

Many of the Hispanic origin categories for dress rehearsal householders had a relatively small representation. Among the categories with a relatively large representation, return rates for householders that did not have a Hispanic origin were higher than the return rates for householders that were Mexican or belonged to the "other Spanish/Hispanic" category. Return rates for Puerto Rican householders were also lower than the return rates for householders without a Hispanic origin in Sacramento and the mailout/mailback portion of South Carolina.

Return rates according to race demonstrated that white householders were generally more likely to respond than householders belonging to any other race. This is consistent with the often observed trend of greater difficulty in counting members of minorities.

Section 6. References

- 1 Dimitri, C. Robert. "Mail Implementation Strategy." Census 2000 Dress Rehearsal Evaluation Memorandum A1a, Dated June 1999.
- 2 From Howard R. Hogan. "Revision: Documentation of Response and Return Rates for the 2000 Dress Rehearsal and Census 2000." Census 2000 Decision Memorandum No. 65, Dated December 2, 1998.
- 3 Leslie, T. "U.S. 2000 Census Test - Additional Results from the Mail Response Analysis." 1996 National Content Survey DSSD Memorandum No. 3, Dated April 3, 1997.

Receipt of Mailback Questionnaires from Housing Units with an Occupied Final Status

Chart 1.

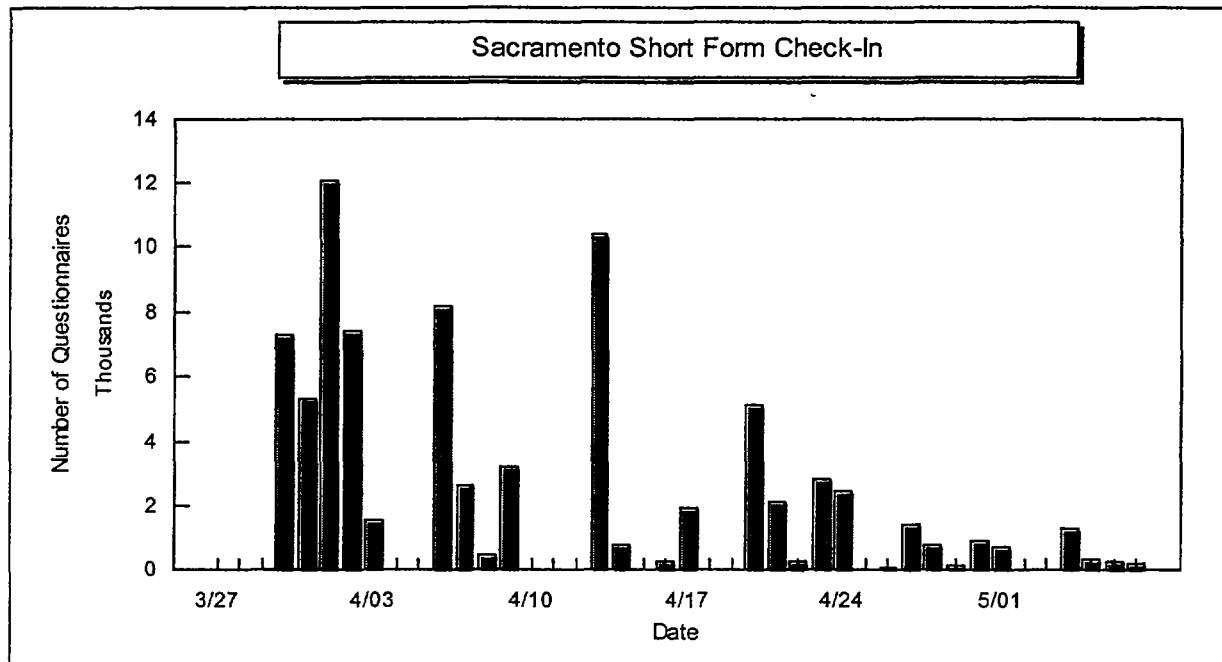


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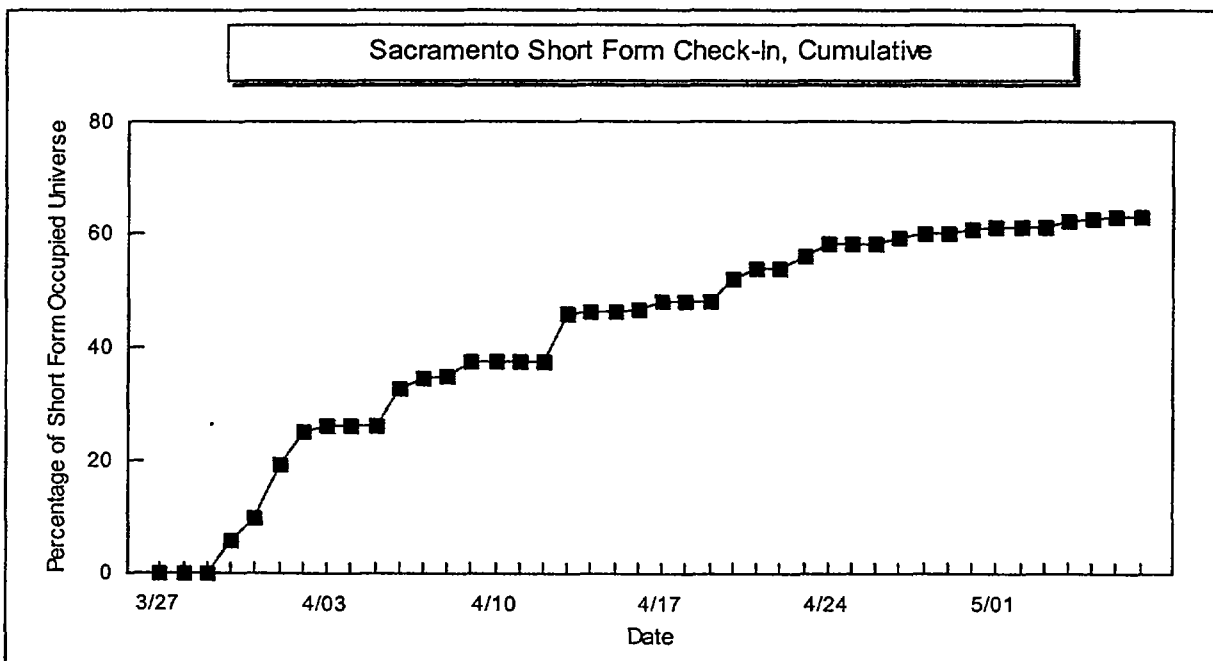


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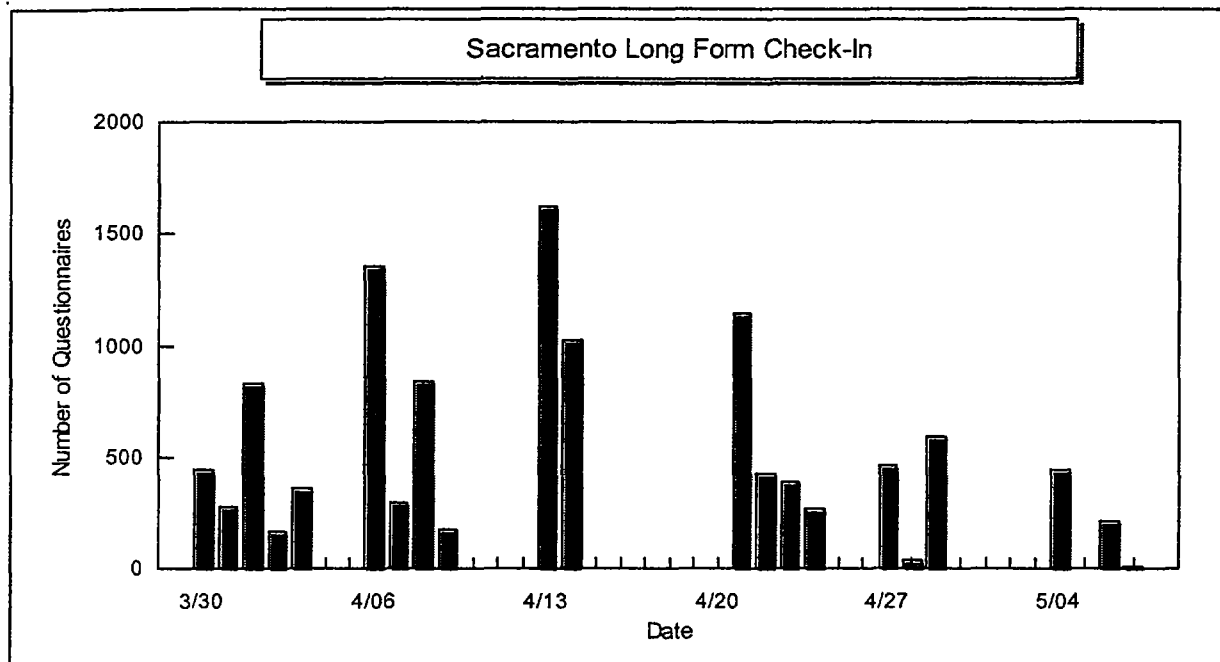


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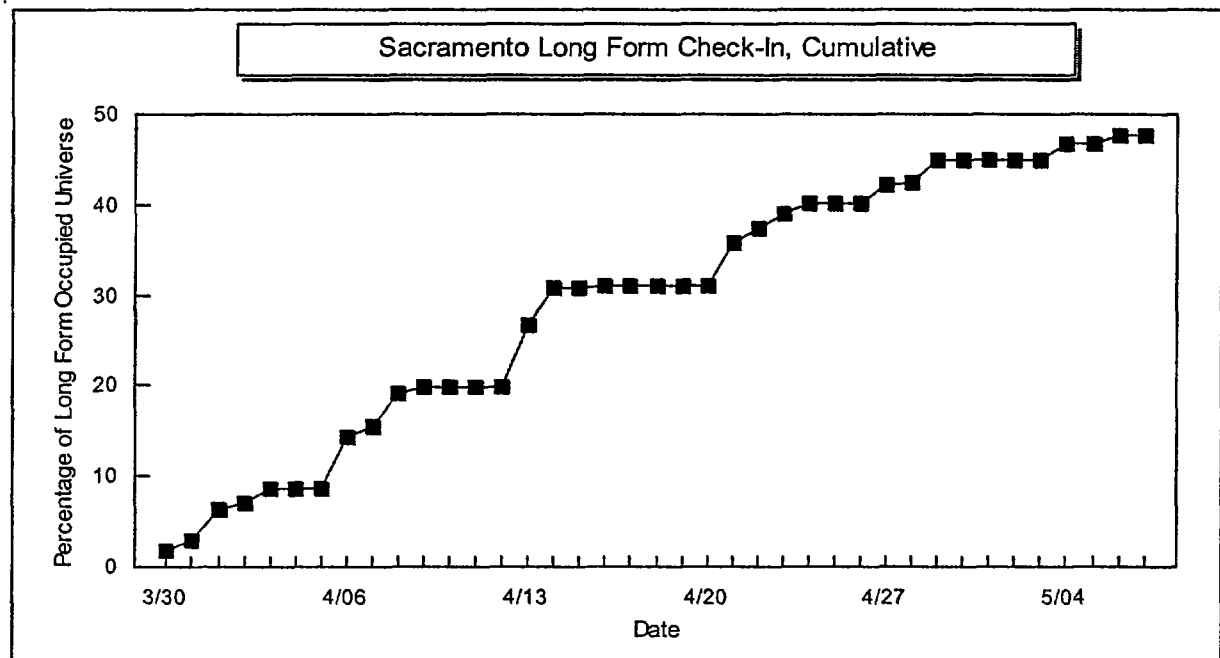


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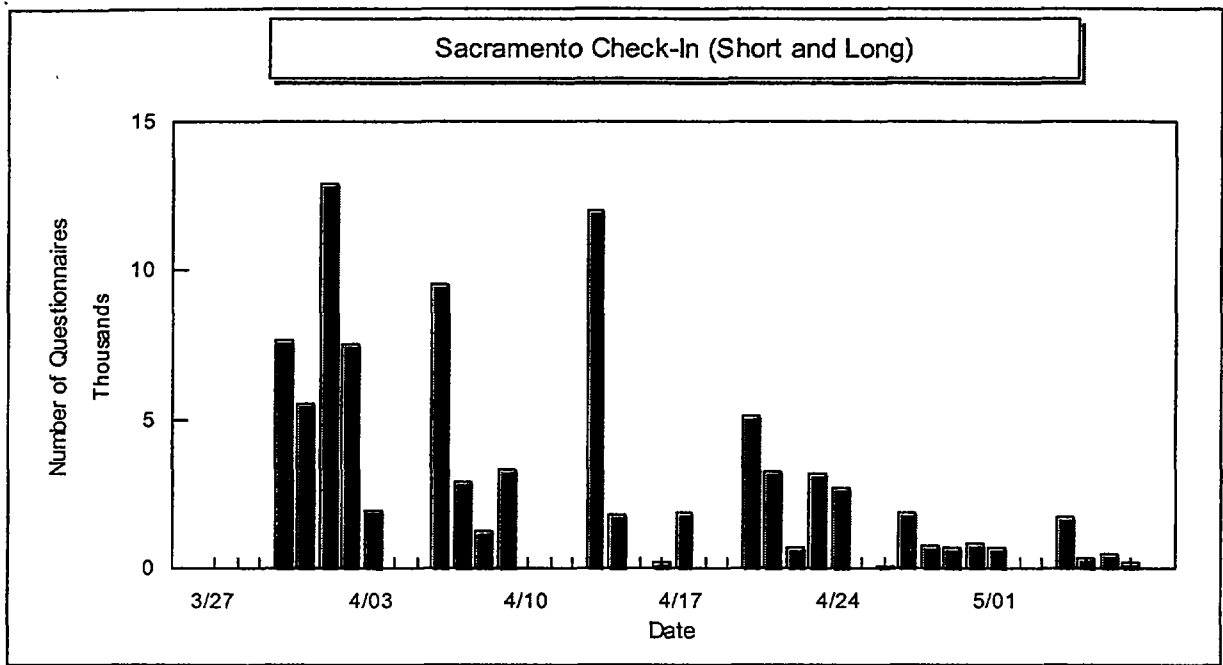


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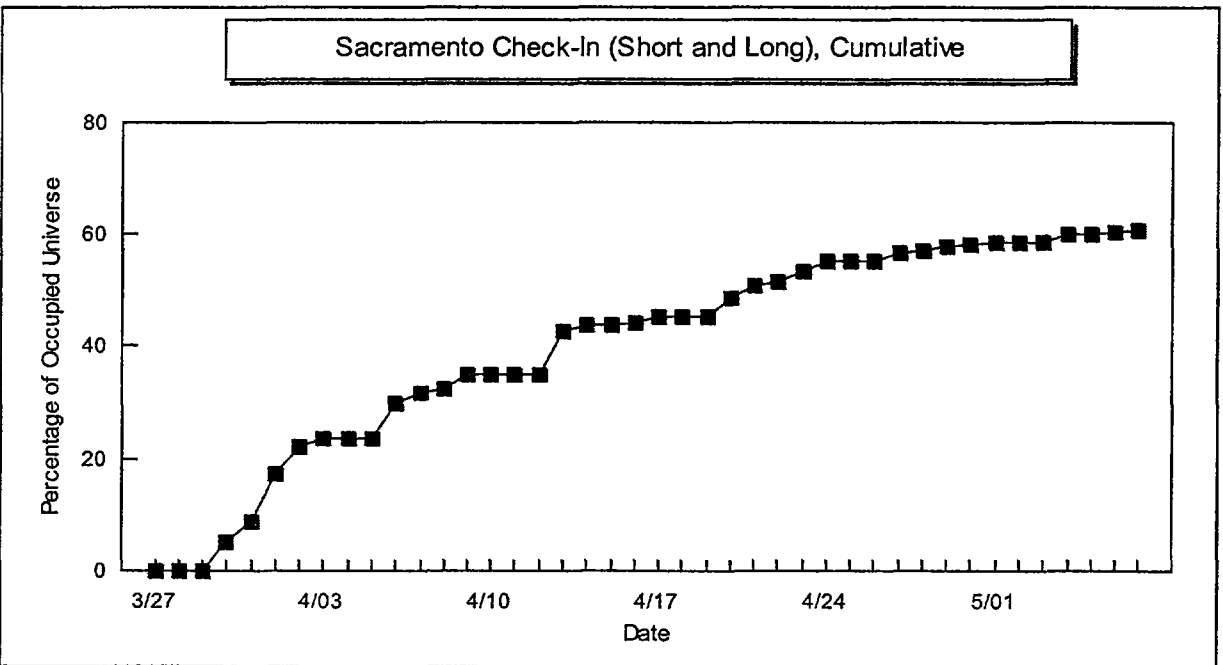


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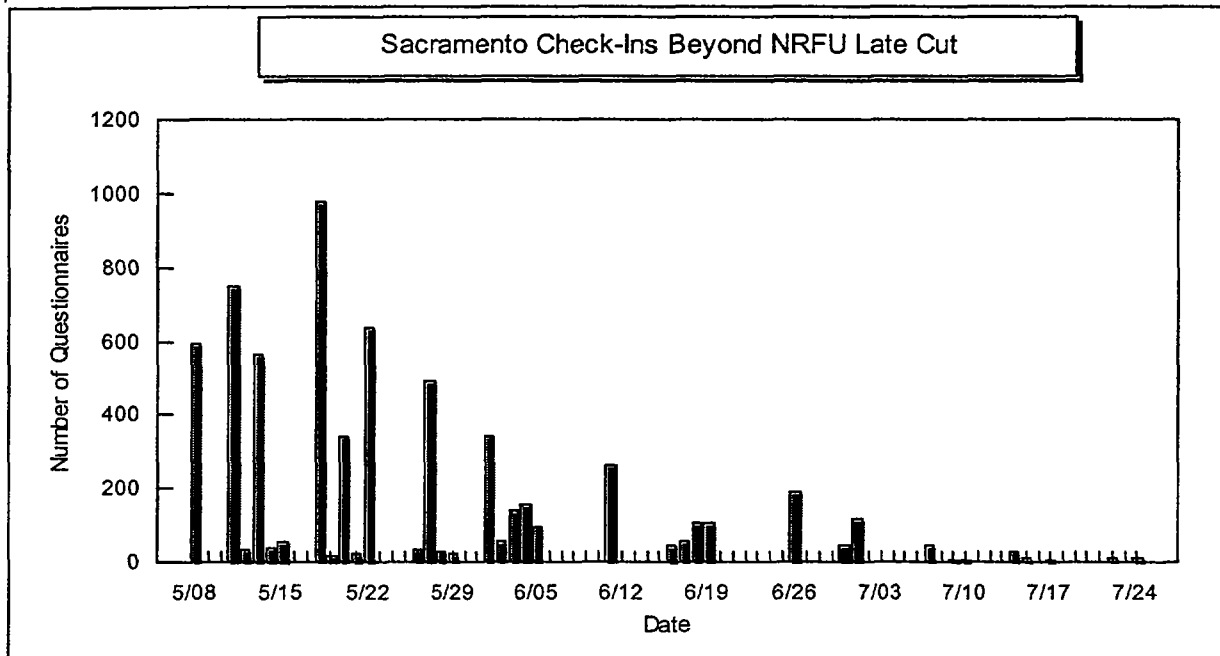


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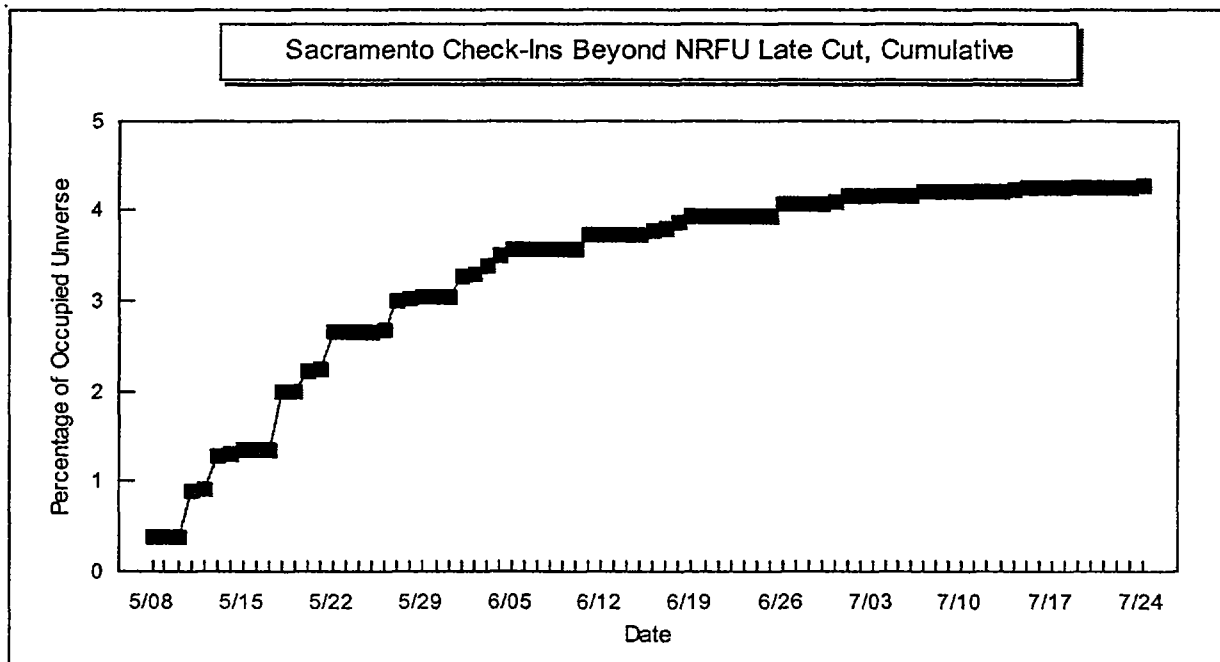


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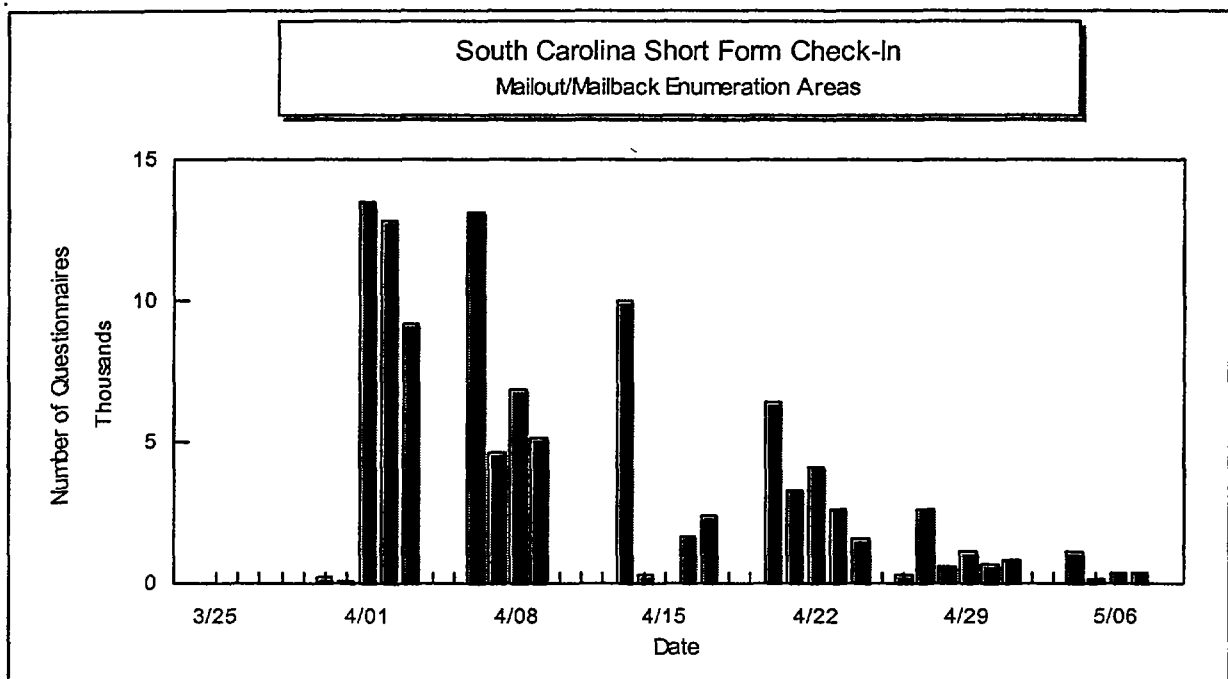


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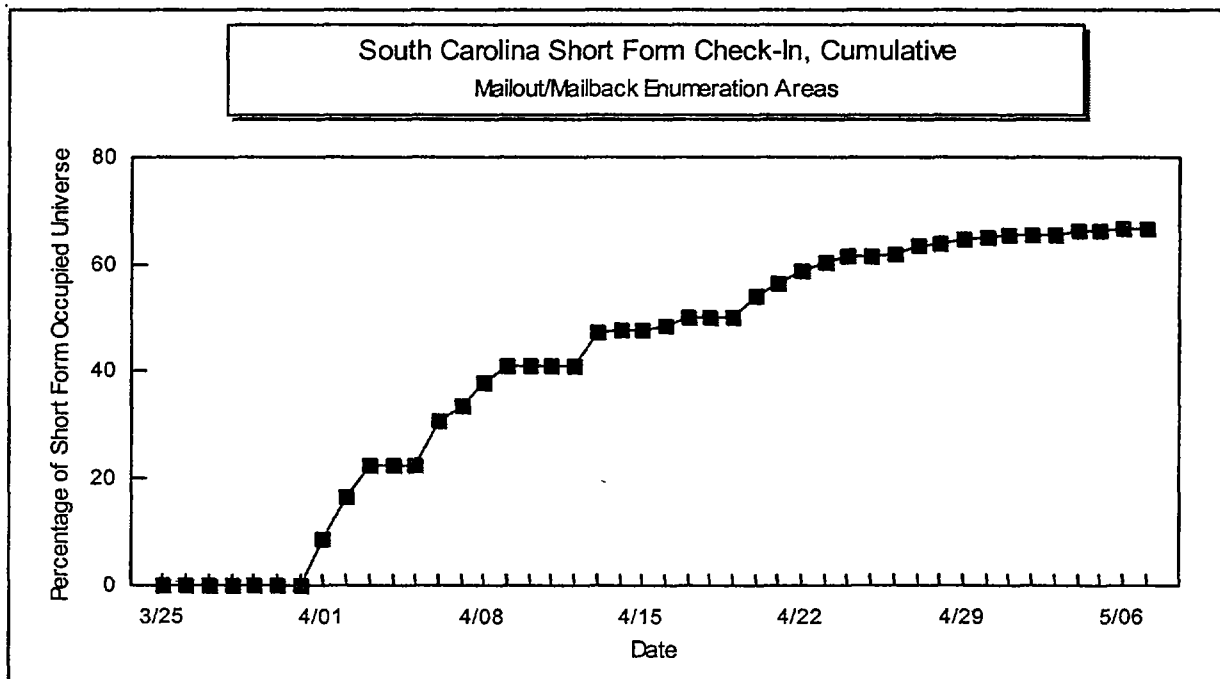


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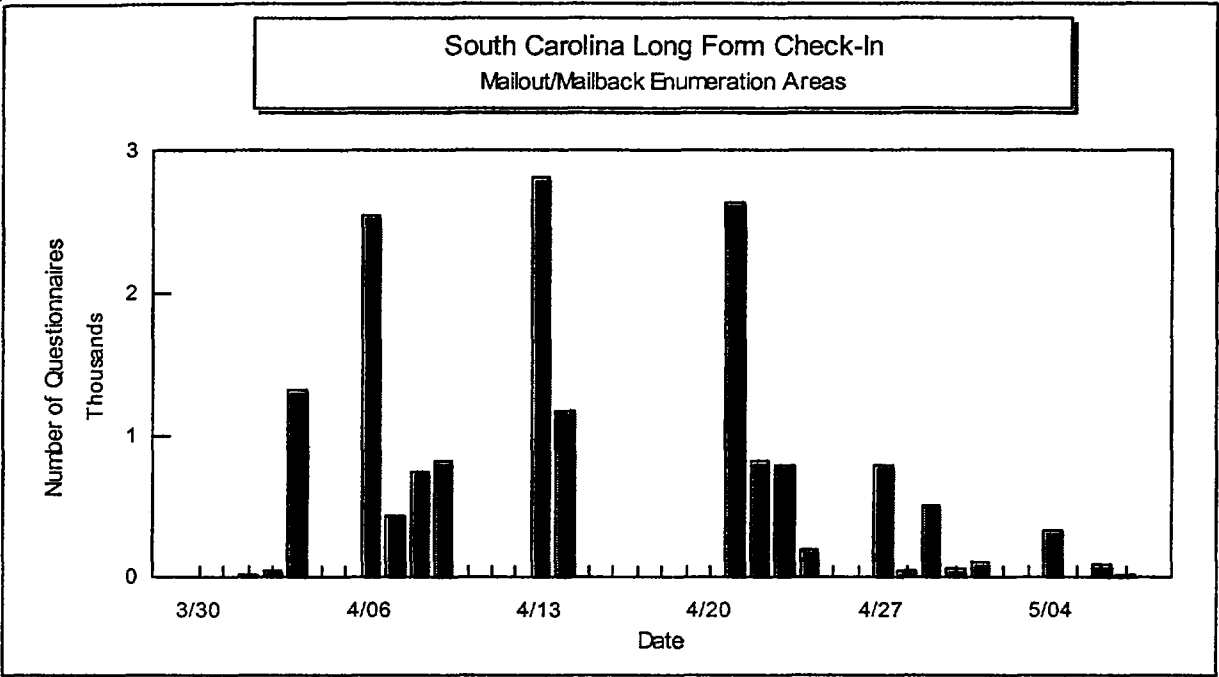


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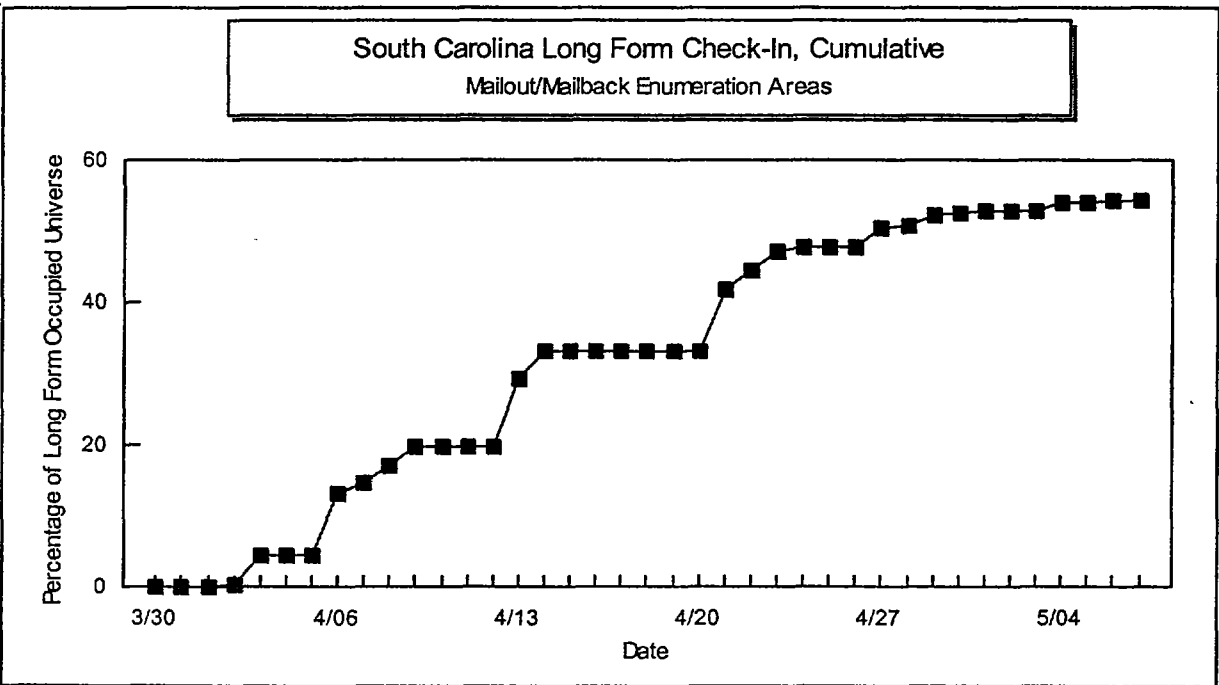


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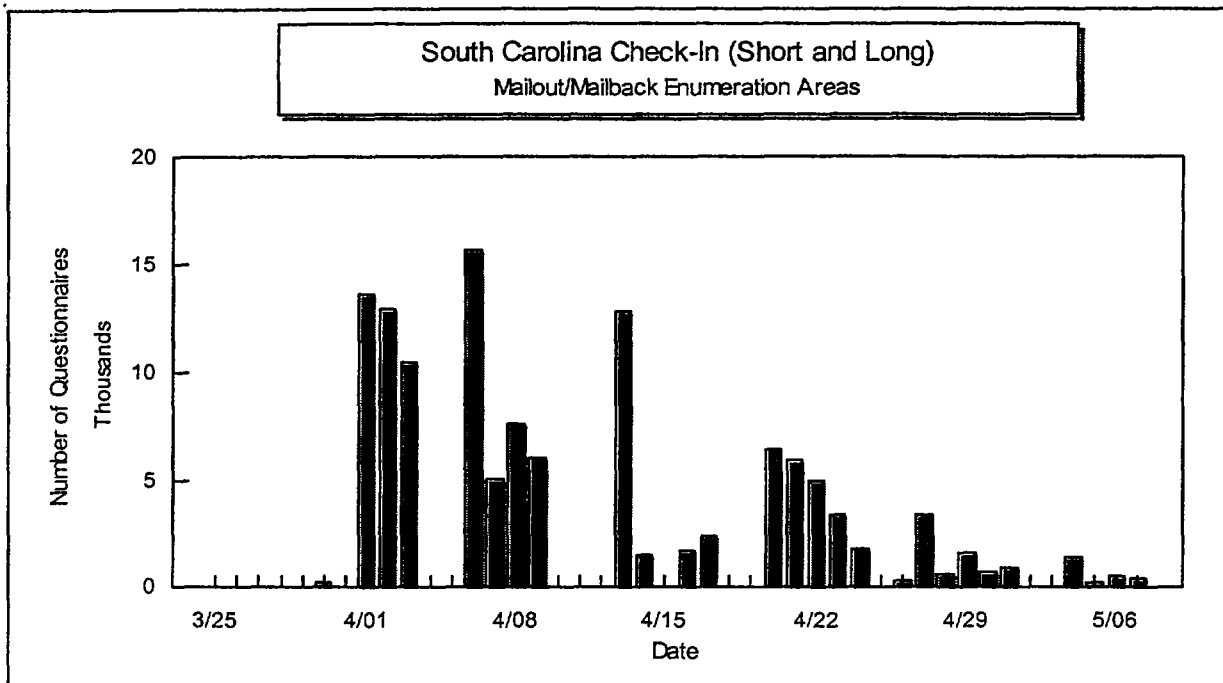


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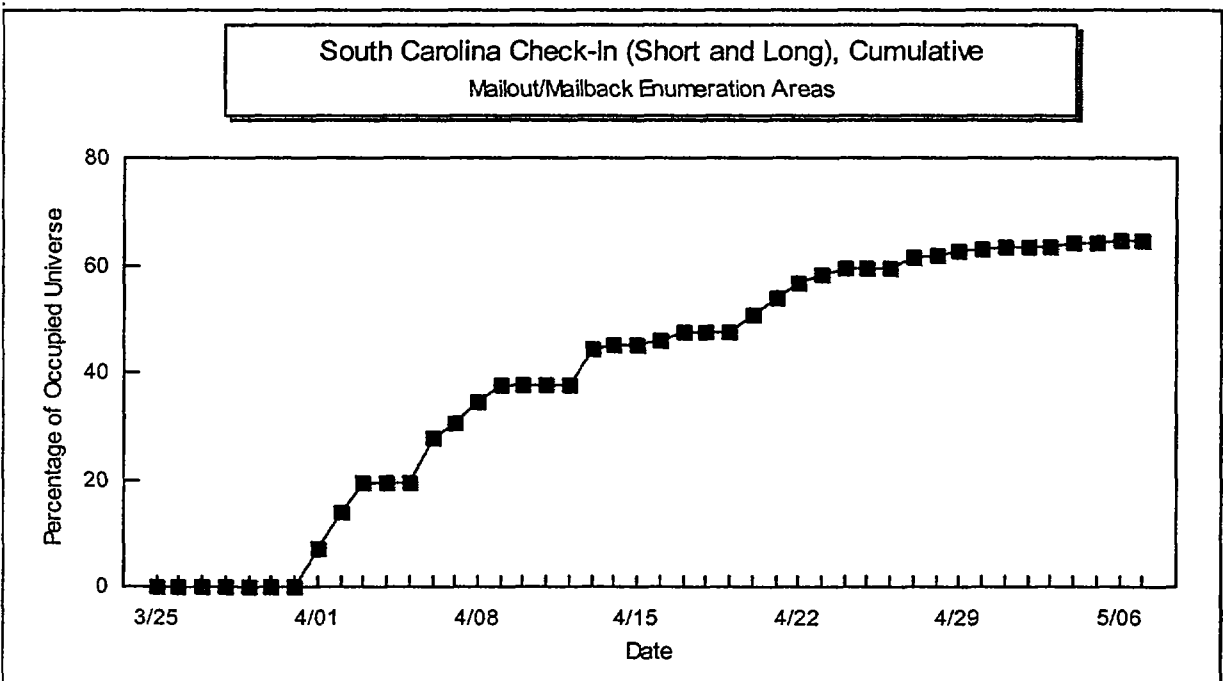


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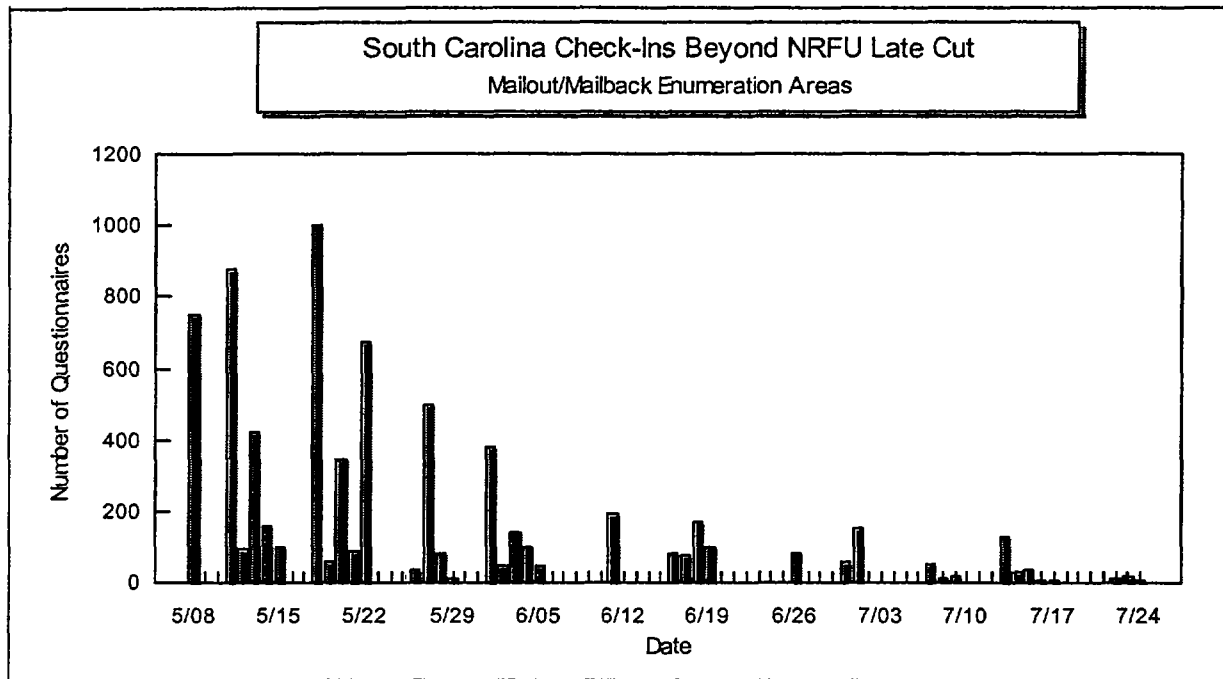


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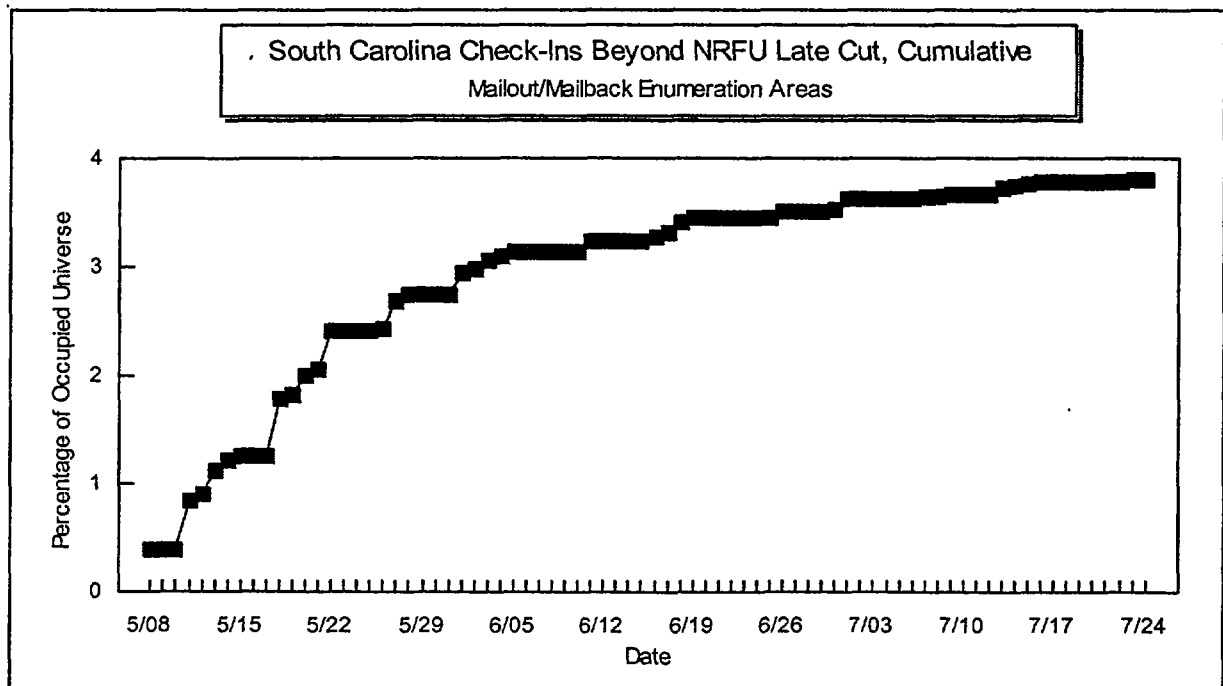


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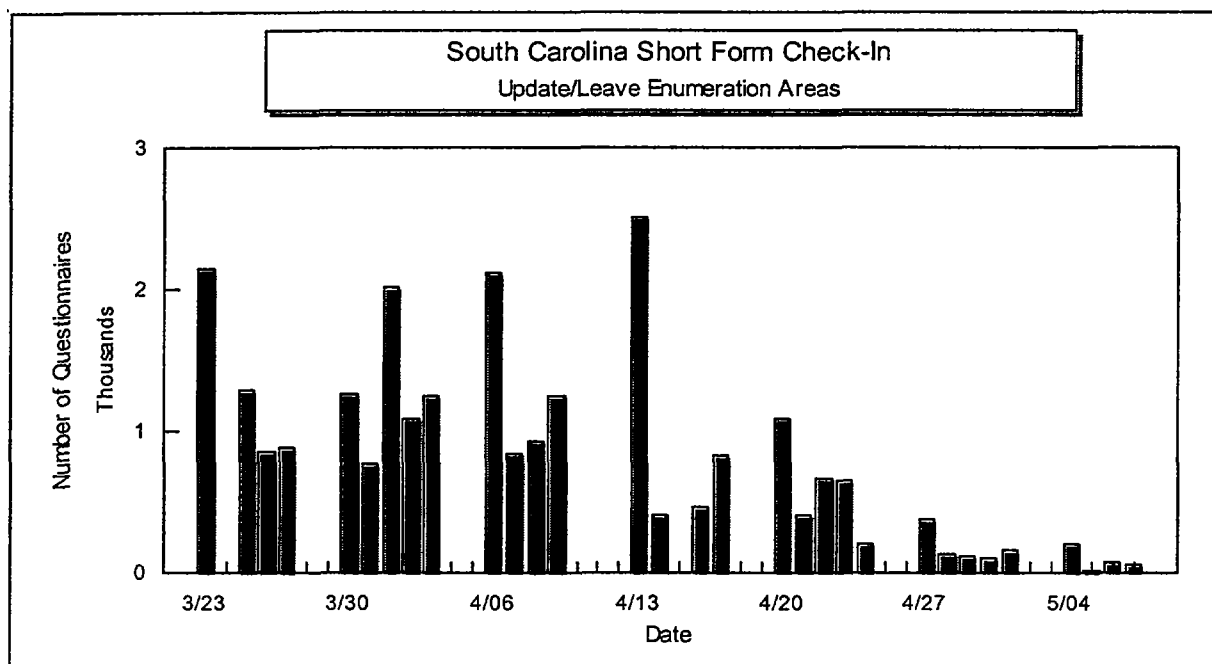


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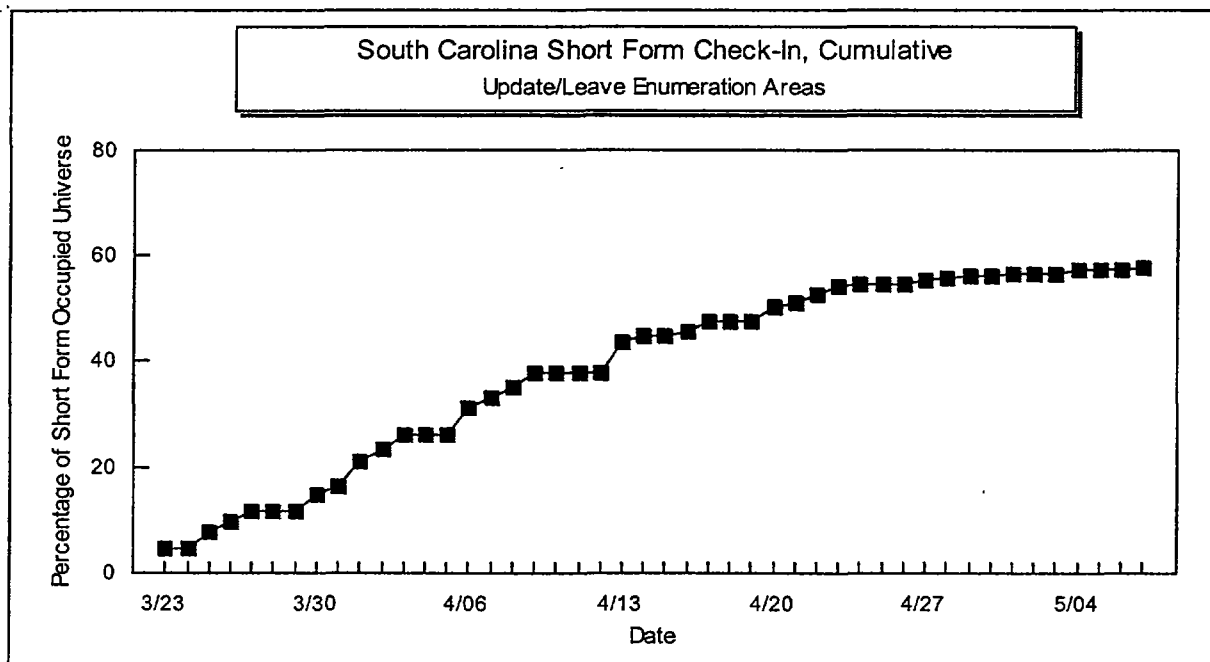


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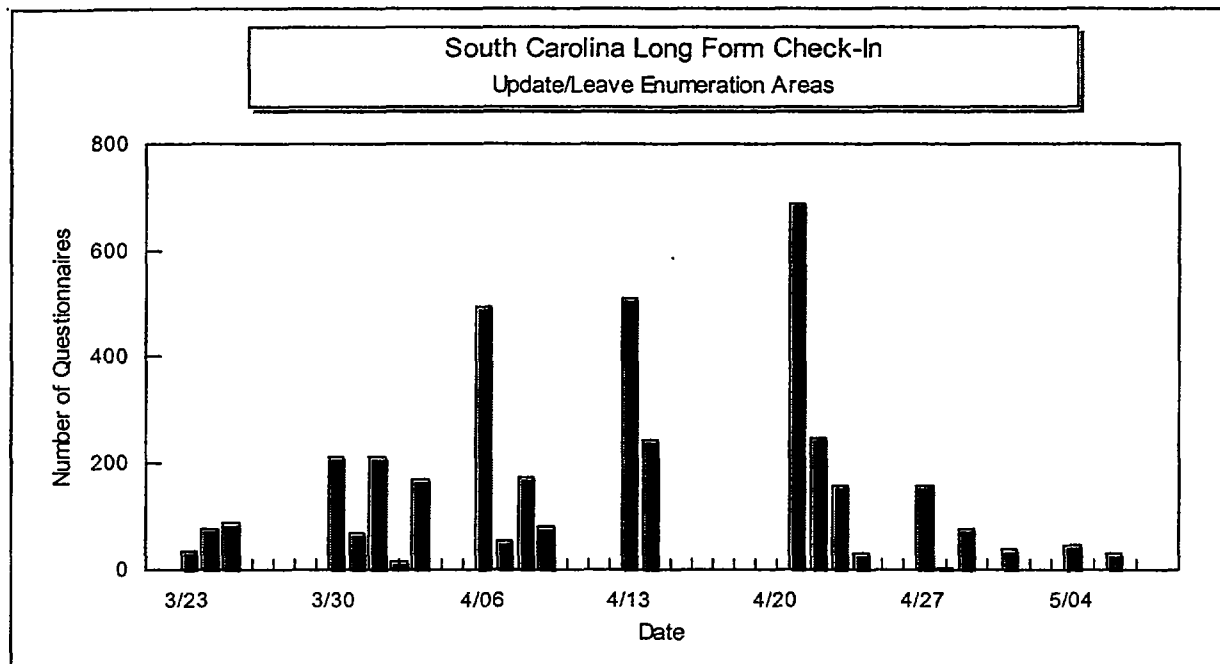


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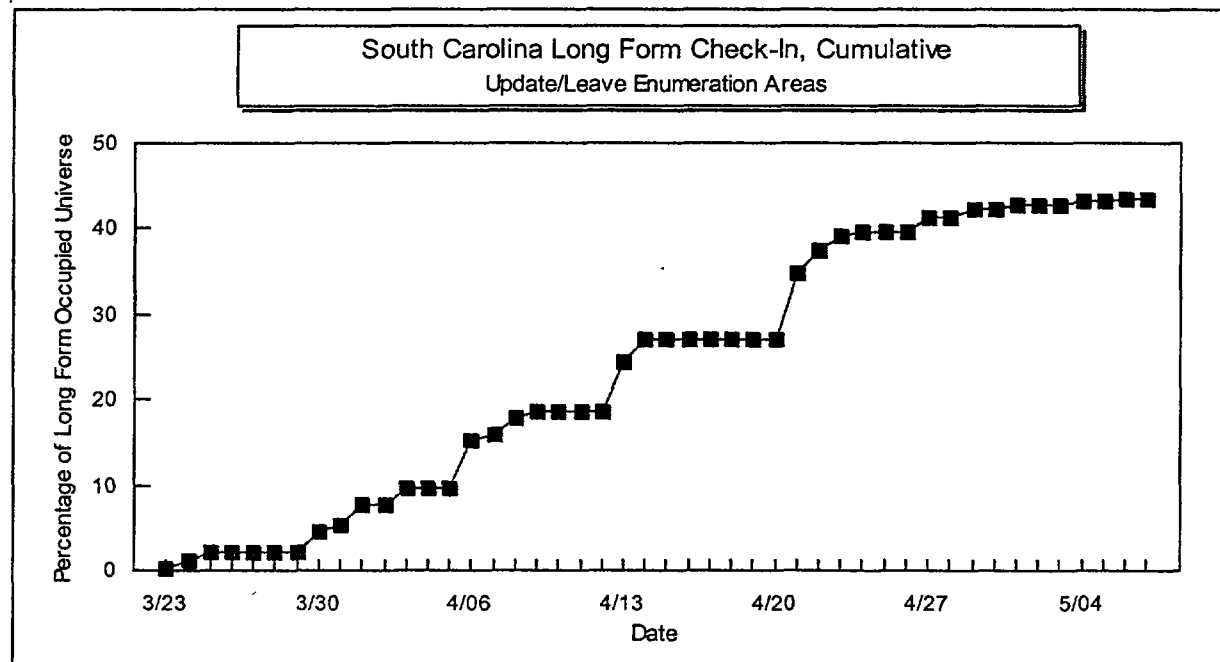


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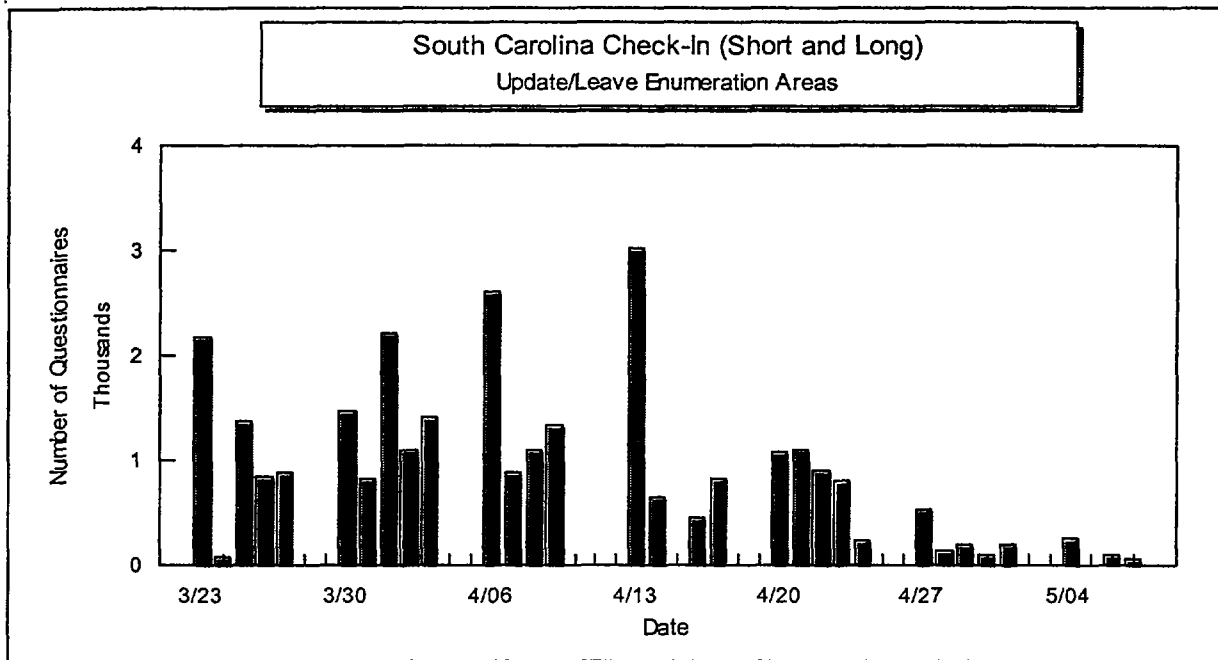


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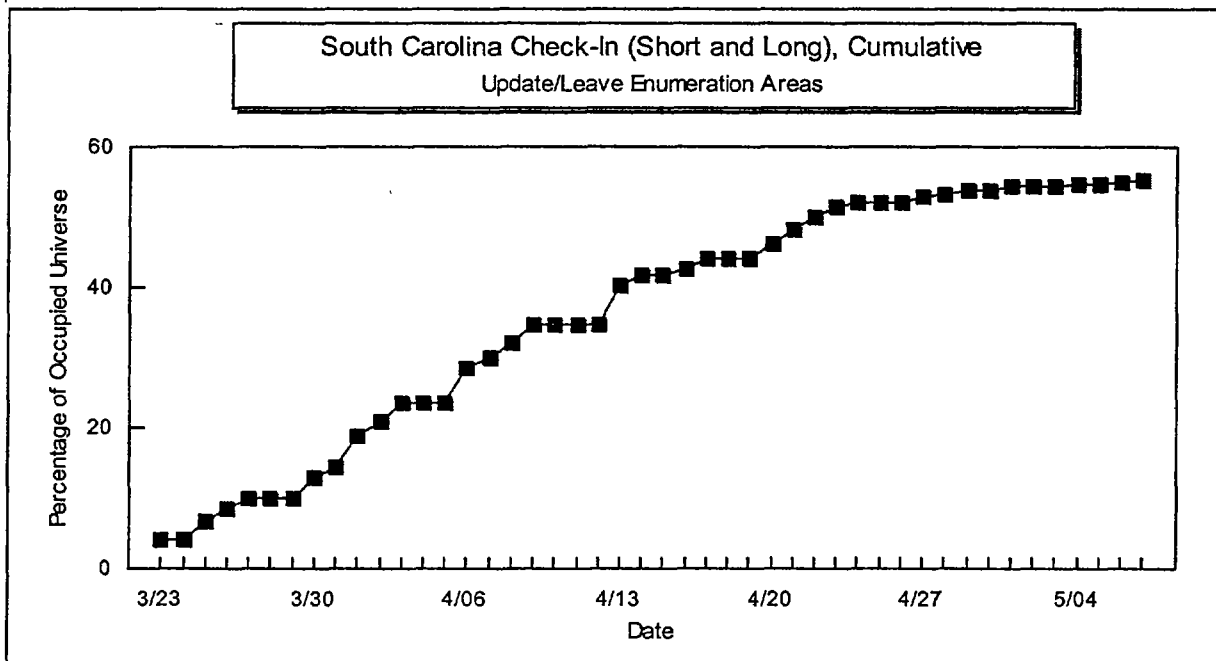


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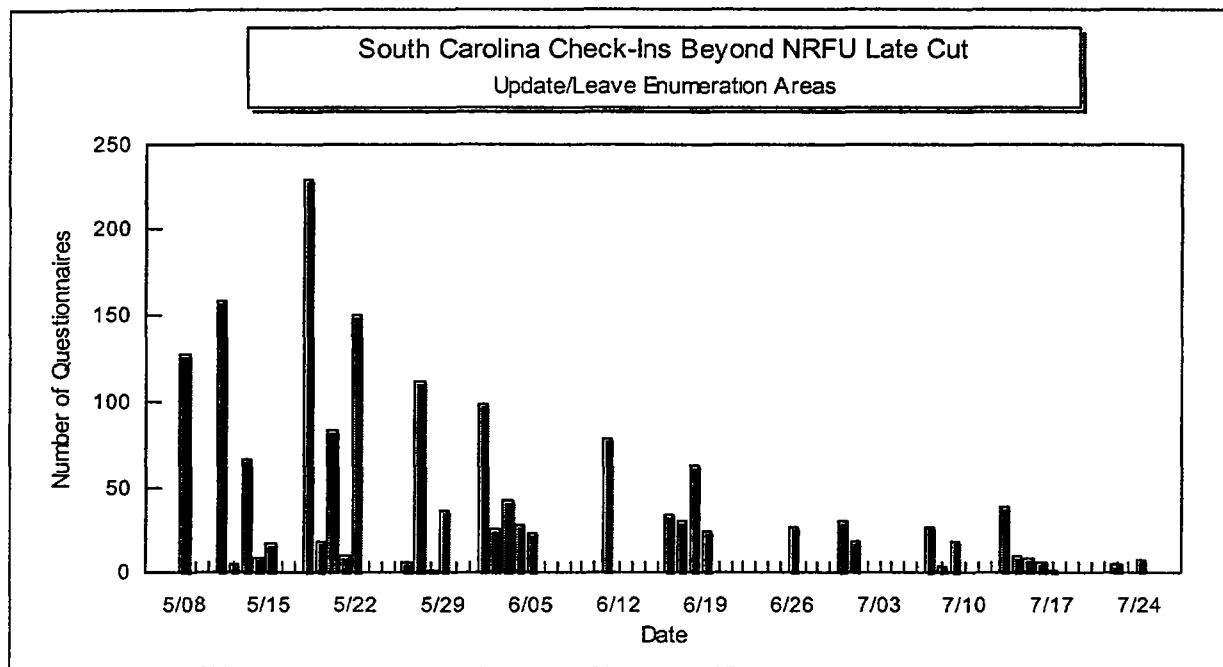


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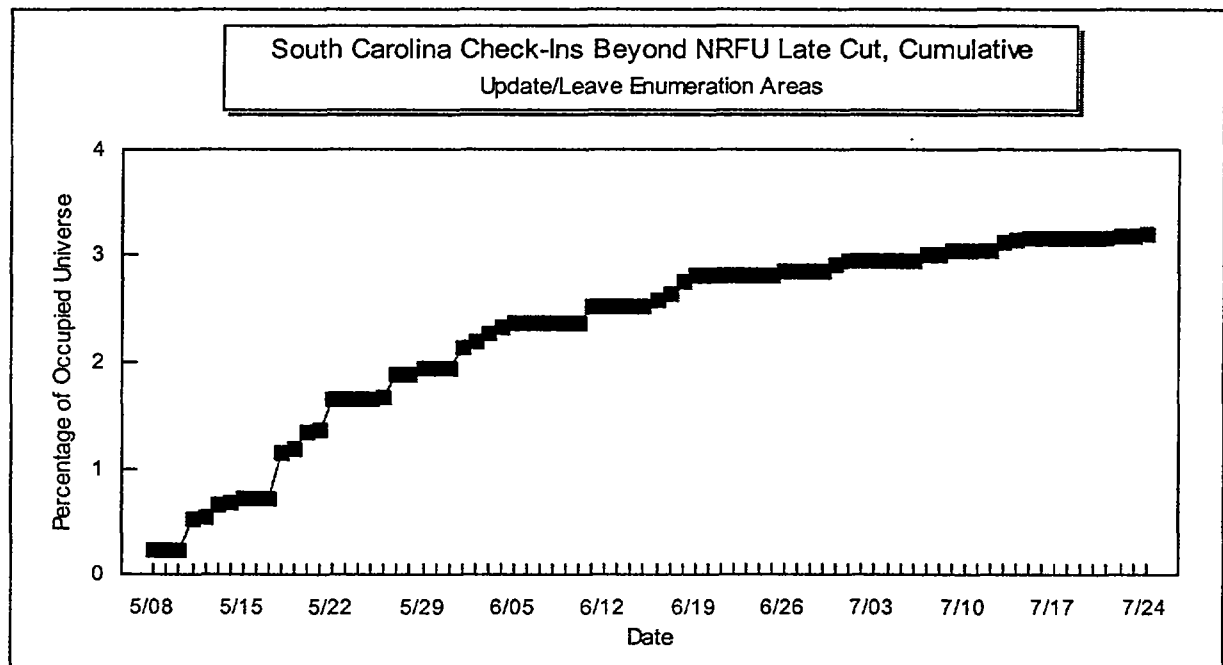


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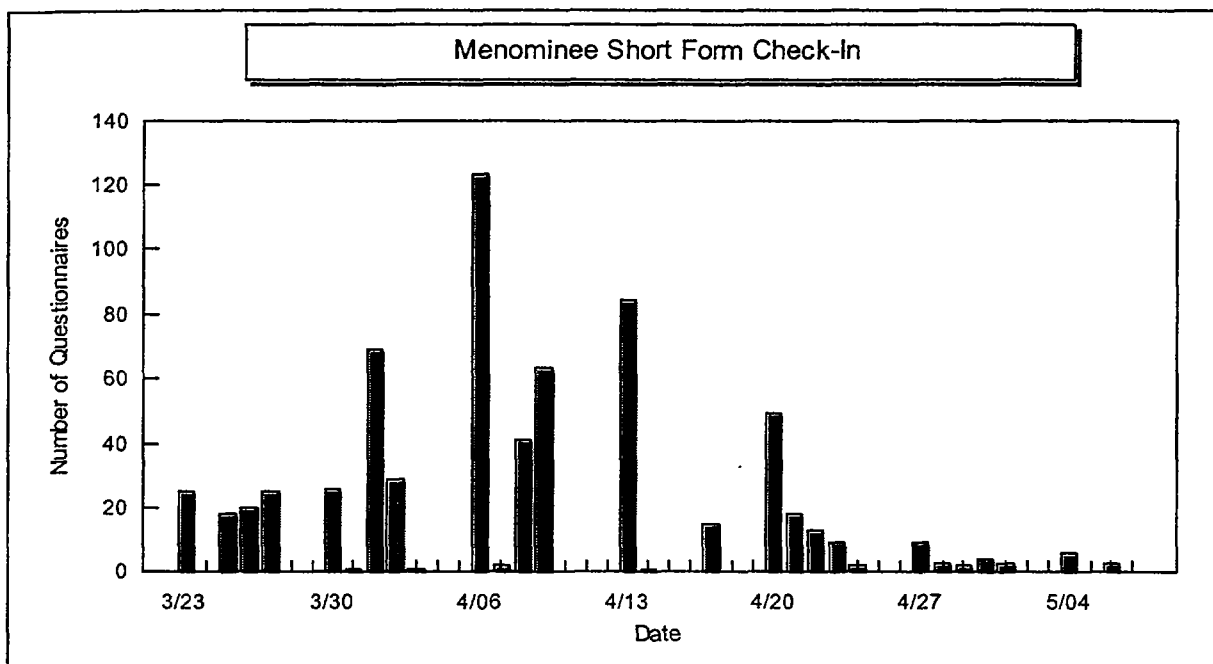


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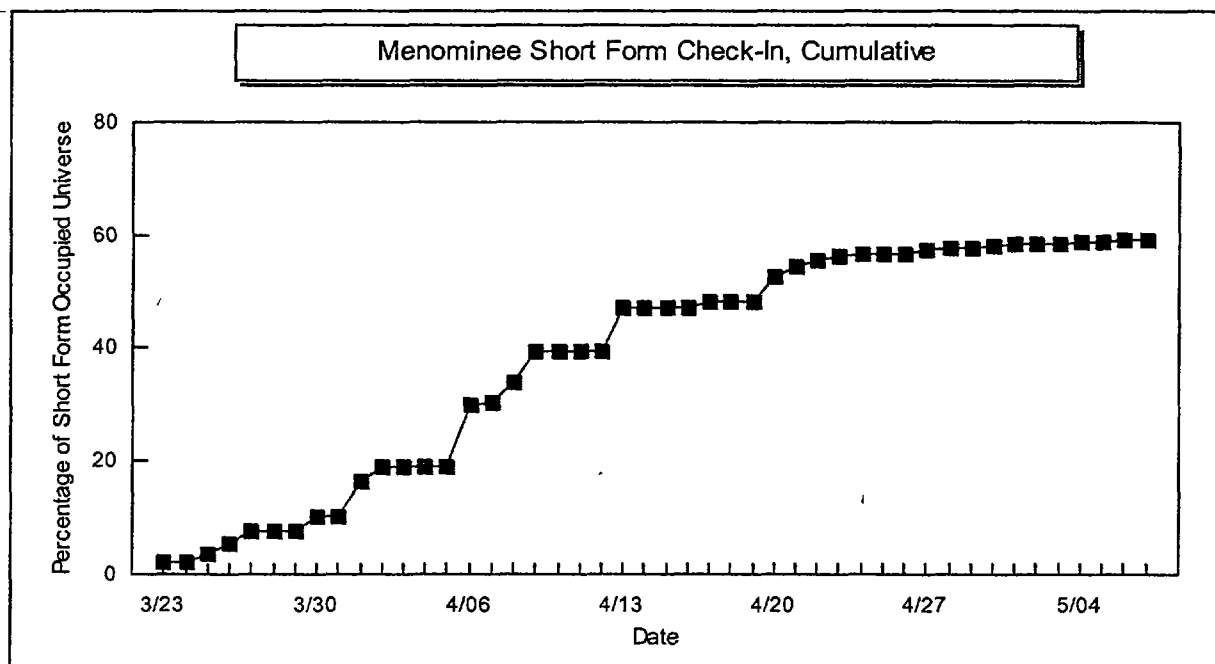


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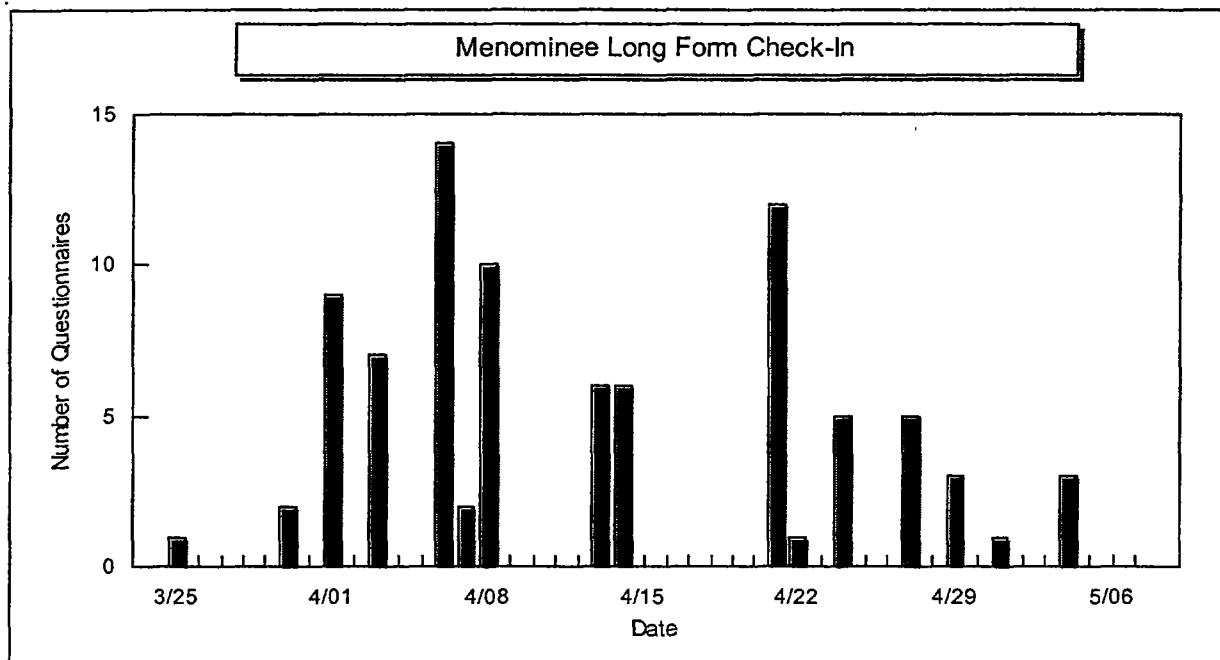


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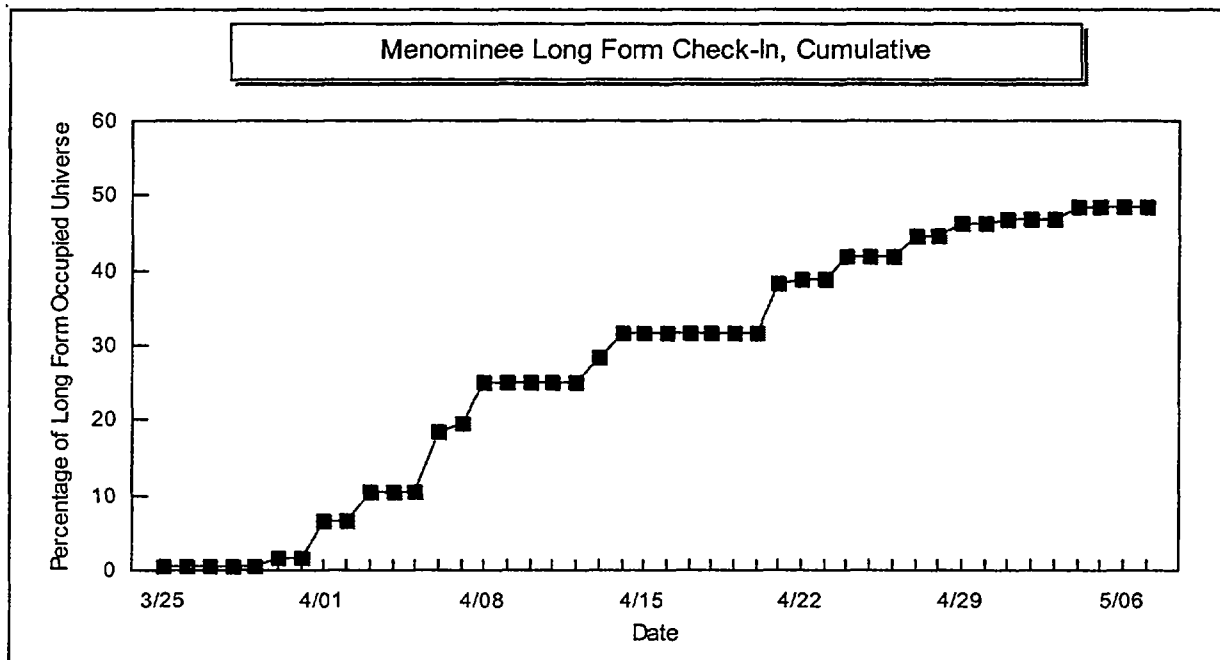


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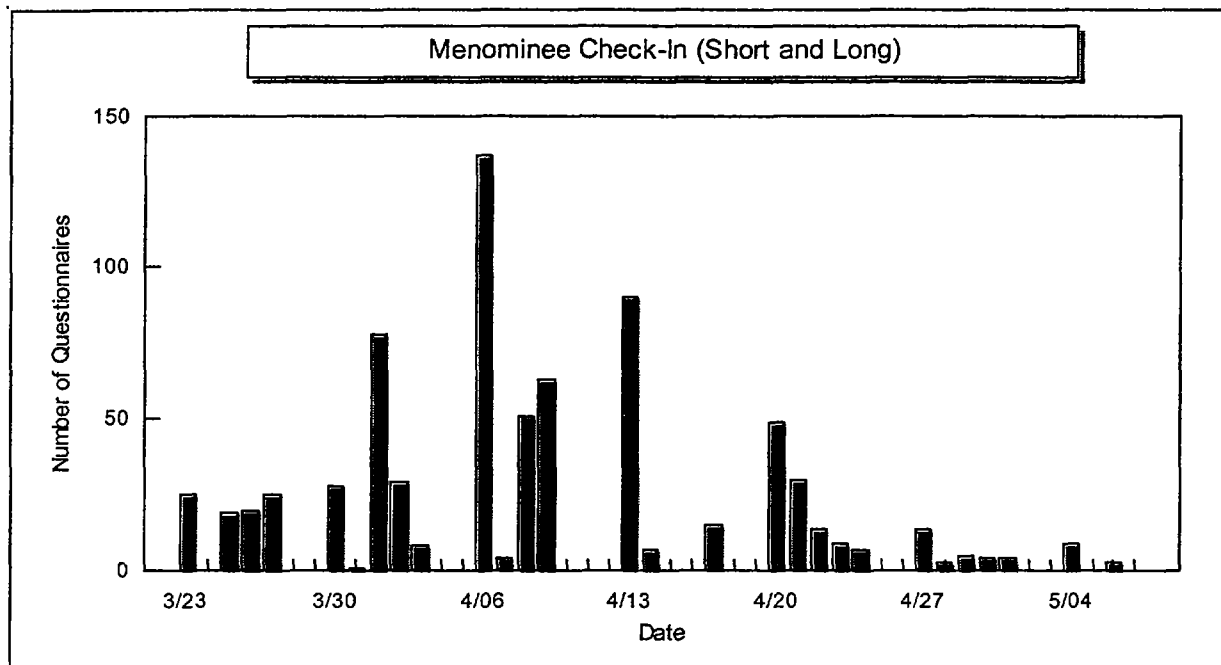


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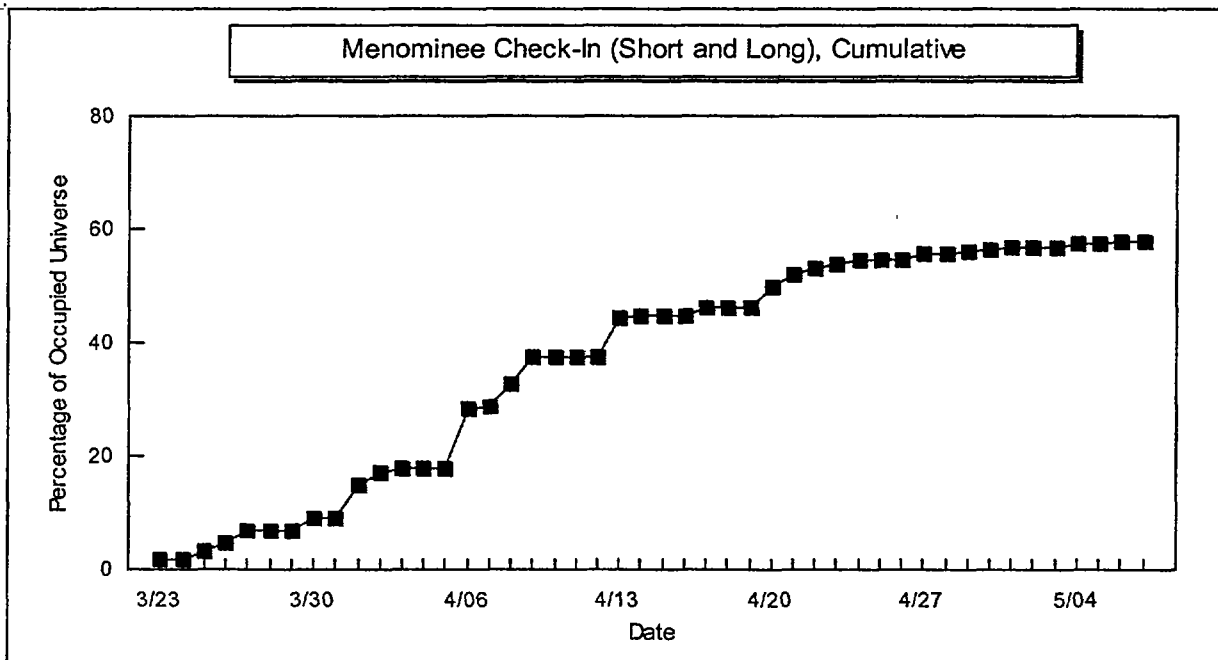


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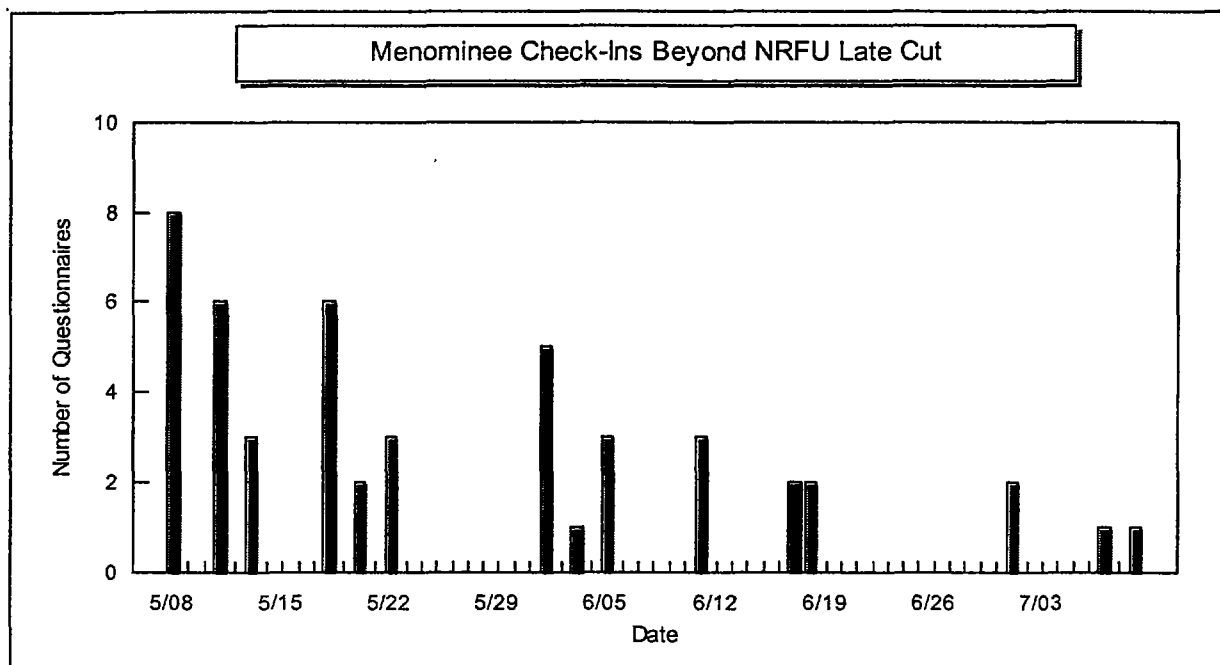
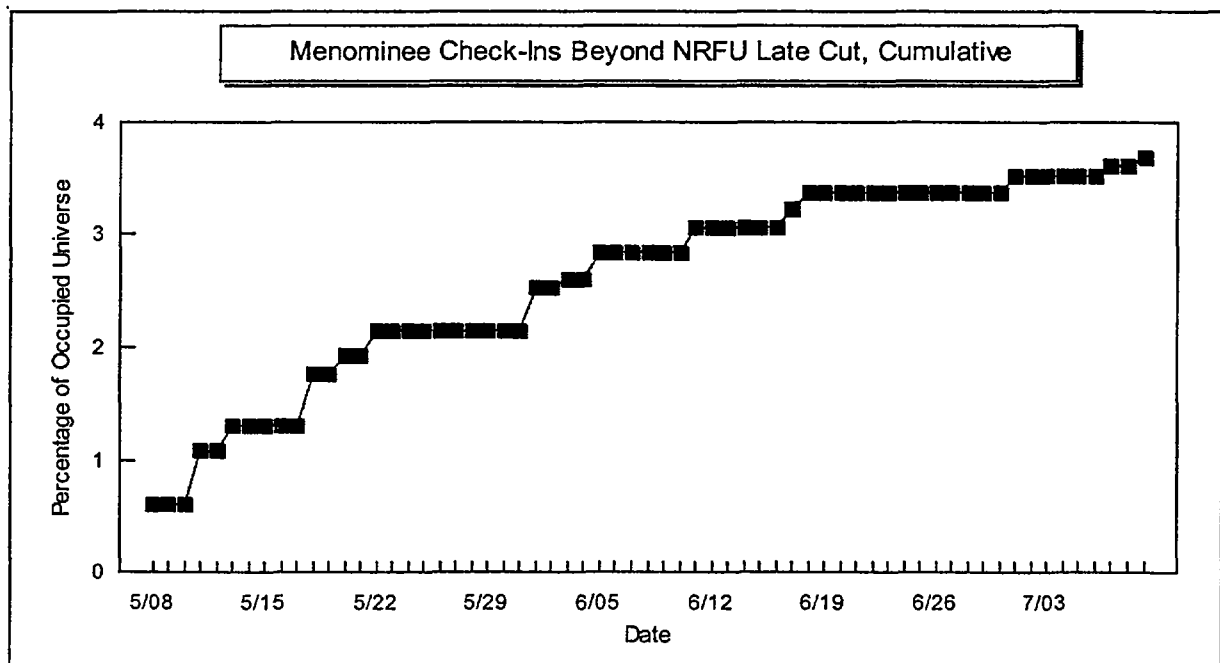


Chart 32.



Dress Rehearsal Return and Response Rates

Table 11. Return and Response Rates for Entire Sacramento Site

Mailback Housing Unit Count	Response Rate			Occupied Housing Units	Return Rate			Return/Response Rate Differential
	Short Form	Long Form	Overall		Short Form	Long Form	Overall	Overall
173483	55.4	40.7	53.0	151463	63.1	47.7	60.6	7.6

Table 12. Sacramento Return and Response Rates According to Tract

Tract Number	Mailback Housing Unit Count	Overall Response Rate	Occupied Housing Units	Overall Return Rate	Return/Response Rate Differential
000100	1735	76.0	1699	77.5	1.6
000200	1837	70.0	1755	73.0	3.0
000300	1617	65.6	1547	68.5	2.9
000400	2446	50.7	2192	56.5	5.9
000500	2490	33.3	1707	48.6	15.3
000600	575	39.7	483	47.2	7.6
000700	658	53.0	444	78.2	25.1
000800	1244	56.8	994	70.9	14.2
000900	201	57.7	172	67.4	9.7
001000	678	24.9	312	54.2	29.2
001100	876	38.0	616	54.1	16.0
001200	2571	50.0	2153	59.5	9.5
001300	2518	45.5	1994	57.4	11.9
001400	1953	53.8	1753	59.6	5.8
001500	2536	63.4	2338	68.8	5.3
001600	2685	67.4	2525	71.6	4.2
001700	2537	63.6	2284	70.5	6.9
001800	2394	42.0	1988	50.5	8.5
001900	1826	48.1	1620	54.3	6.1

Table 12. Sacramento Return and Response Rates According to Tract (continued)

Tract Number	Mailback Housing Unit Count	Overall Response Rate	Occupied Housing Units	Overall Return Rate	Return/Response Rate Differential
002000	1493	50.8	1330	56.9	6.1
002100	1270	38.3	995	48.8	10.6
002200	1783	58.8	1656	63.2	4.4
002300	1698	68.0	1600	72.1	4.2
002400	2150	71.8	2026	76.1	4.3
002500	738	69.2	714	71.4	2.2
002600	1318	55.8	1177	62.4	6.7
002700	1729	36.9	1365	46.7	9.8
002800	1157	38.4	917	48.2	9.8
002900	2403	63.8	2211	69.3	5.5
003000	2870	59.3	2582	65.9	6.6
003101	1272	59.9	1193	63.9	4.0
003102	1305	53.0	1055	65.5	12.5
003201	2124	45.8	1920	50.7	4.9
003202	1863	53.1	1639	60.0	6.9
003300	1946	72.6	1871	75.4	2.8
003400	1860	65.3	1689	71.8	6.5
003501	1305	54.8	1202	59.4	4.6
003502	1330	67.8	1278	70.6	2.8
003600	1055	47.8	922	54.6	6.8
003700	1387	35.0	1141	42.4	7.5
003800	1747	58.7	1655	62.0	3.3
003900	1693	70.9	1611	74.4	3.5
004001	2847	68.1	2712	71.3	3.2
004004	2665	71.7	2552	74.8	3.1
004005	1995	68.6	1896	72.1	3.5
004006	2244	62.7	2120	66.2	3.6
004007	6567	62.5	6065	67.6	5.1

Table 12. Sacramento Return and Response Rates According to Tract (continued)

Tract Number	Mailback Housing Unit Count	Overall Response Rate	Occupied Housing Units	Overall Return Rate	Return/Response Rate Differential
004008	1477	66.4	1429	68.6	2.2
004100	1641	46.1	1454	52.0	5.9
004201	1715	53.9	1636	56.5	2.6
004202	1621	49.8	1498	53.8	4.0
004203	1336	45.1	1199	50.1	5.1
004300	1696	46.5	1582	49.9	3.4
004401	1071	51.0	913	59.6	8.6
004402	666	39.6	575	45.9	6.3
004500	1344	48.9	1011	65.0	16.1
004601	1212	38.0	998	46.2	8.2
004700	429	30.5	262	50.0	19.5
004801	1478	52.0	1397	55.0	2.9
004802	146	54.8	144	55.6	0.8
004903	2165	39.4	1775	48.1	8.7
004904	522	63.6	500	66.4	2.8
004905	2382	50.6	2174	55.5	4.8
004906	730	44.7	636	51.3	6.6
005002	524	49.4	271	87.1	37.7
005103	556	62.2	497	69.4	7.2
005201	981	45.2	889	49.7	4.6
005202	1474	66.8	1407	69.9	3.1
005203	3269	63.3	3006	68.7	5.5
005300	1621	9.3	318	47.2	37.9
005402	2019	39.1	1503	52.4	13.2
005403	1353	67.6	1282	71.2	3.7
005404	1655	61.1	1528	66.2	5.1
005502	1797	33.9	958	63.6	29.7
005503	1	0.0	1	0.0	0.0

Table 12. Sacramento Return and Response Rates According to Tract (continued)

Tract Number	Mailback Housing Unit Count	Overall Response Rate	Occupied Housing Units	Overall Return Rate	Return/Response Rate Differential
005504	711	50.5	593	60.5	10.0
006201	254	42.5	194	55.7	13.2
006202	1311	46.2	1100	55.1	8.9
006300	1846	48.9	1570	57.5	8.6
006400	1786	48.6	1535	56.5	7.9
006500	2052	42.9	1720	51.1	8.2
006600	2379	41.4	1913	51.4	10.0
006701	2315	50.2	2123	54.6	4.4
006702	1987	38.2	1673	45.3	7.1
006800	2420	40.3	2049	47.4	7.1
006900	2985	39.9	2005	59.3	19.4
007001	1531	42.8	1283	51.0	8.2
007003	3781	49.8	3122	60.2	10.4
007004	1433	46.1	1284	51.3	5.3
007005	3919	50.2	3583	54.8	4.6
007006	4061	53.9	3831	57.0	3.1
007007	1225	53.1	1078	60.1	7.1
007100	170	44.7	142	53.5	8.8
007202	55	60.0	48	68.8	8.8
007204	1566	55.3	1392	62.2	6.9
007300	220	42.7	177	51.4	8.7
007413	3	33.3	2	50.0	16.7
007502	206	56.3	151	76.8	20.5
009200	67	67.2	57	78.9	11.8
009601	1770	53.2	1707	55.0	1.8
009602	4873	46.8	4492	50.7	3.9
009603	4462	55.5	4105	60.3	4.8
009605	23	56.5	21	61.9	5.4

Table 13. Return and Response Rates for Entire Mailout/Mailback Portion of South Carolina Site

Mailback Housing Unit Count	Response Rate			Occupied Housing Units	Return Rate			Return/Response Rate Differential
	Short Form	Long Form	Overall		Short Form	Long Form	Overall	Overall
224009	56.8	45.6	55.0	189873	66.7	54.4	64.8	9.8

Table 14. South Carolina Mailout/Mailback Return and Response Rates According to Tract

Tract Number	Mailback Housing Unit Count	Overall Response Rate	Occupied Housing Units	Overall Return Rate	Return/Response Rate Differential
023020100	1136	31.0	732	48.1	17.1
023020200	1660	32.6	1194	45.2	12.6
023020300	1257	32.3	998	40.7	8.4
023020600	404	32.9	307	43.3	10.4
023021000	811	53.9	664	65.2	11.3
025950100	701	36.2	448	56.7	20.5
025950400	394	50.0	312	62.8	12.8
025950500	1333	62.1	1169	70.7	8.5
025950600	1084	48.1	865	60.2	12.2
031010200	403	57.1	354	65.0	7.9
031010300	1595	50.2	1239	64.6	14.4
031010400	1006	70.0	904	77.9	7.9
031010500	1430	54.8	1141	68.4	13.7
031010600	1313	49.5	1062	61.2	11.7
031010700	1608	39.6	1223	51.8	12.3
031010800	321	55.1	288	61.1	6.0
031010900	377	53.8	280	72.5	18.7
031011000	1375	42.8	996	59.0	16.3
031011100	1448	36.5	858	61.4	25.0
031011200	2103	38.5	1542	52.3	13.9

Table 14. South Carolina Mailout/Mailback Return and Response Rates According to Tract (continued)

Tract Number	Mailback Housing Unit Count	Overall Response Rate	Occupied Housing Units	Overall Return Rate	Return/Response Rate Differential
031011300	960	46.3	772	57.5	11.3
031011400	2809	34.2	1730	55.3	21.1
039960400	1529	46.9	1219	58.7	11.8
039960500	10	60.0	10	60.0	0.0
055970100	570	46.5	444	59.5	13.0
055970200	1076	58.4	913	68.7	10.3
055970300	575	52.2	454	66.1	13.9
055970400	3025	56.6	2648	64.6	8.0
055970500	3233	60.6	2701	72.3	11.7
055970600	3244	58.0	2720	69.2	11.2
055970700	1103	51.4	888	63.7	12.3
055970800	2960	52.1	2401	63.9	11.8
055970900	3955	59.3	3459	67.6	8.3
057010100	1223	62.7	1102	69.4	6.7
057010200	2883	56.7	2379	68.7	12.0
057010300	1677	65.0	1530	71.2	6.2
057010400	1086	64.2	981	70.8	6.7
057010500	2514	48.3	1917	63.3	15.0
057010600	2106	54.6	1714	66.9	12.4
057010700	2241	40.4	1621	55.7	15.3
057010800	1714	42.8	1238	59.0	16.2
057010900	1428	65.1	1250	74.4	9.3
057011000	3627	61.4	3144	70.6	9.2
057011100	1952	60.8	1693	70.1	9.3
057011200	1043	51.0	848	62.6	11.6
061980200	898	50.3	751	60.1	9.7
061980300	814	49.9	684	59.2	9.3

Table 14. South Carolina Mailout/Mailback Return and Response Rates According to Tract (continued)

Tract Number	Mailback Housing Unit Count	Overall Response Rate	Occupied Housing Units	Overall Return Rate	Return/Response Rate Differential
063021105	679	63.9	629	69.0	5.1
069960200	2490	40.2	1946	51.4	11.2
069960300	2602	51.4	2170	61.6	10.2
069960400	751	46.5	626	55.4	9.0
071950100	1261	58.4	1053	69.7	11.3
071950200	3497	59.3	3049	67.9	8.6
071950300	514	56.4	426	67.8	11.4
071950400	468	43.4	314	64.6	21.3
071950500	3740	50.8	3162	59.9	9.2
071950600	3661	50.4	2584	71.2	20.9
079000100	942	51.7	837	58.1	6.4
079000200	855	47.0	687	58.4	11.4
079000300	1295	52.7	1117	61.1	8.4
079000400	951	51.8	823	59.7	7.8
079000500	1128	44.1	958	52.0	7.8
079000600	1116	54.9	976	62.8	7.9
079000700	1029	54.2	876	63.6	9.4
079000800	8	12.5	4	25.0	12.5
079000900	1476	37.3	1068	51.5	14.2
079001000	1400	42.5	1149	51.6	9.1
079001100	2341	61.3	2104	68.3	6.9
079001200	784	73.9	725	79.9	6.0
079001300	1547	39.9	1154	53.6	13.6
079001400	469	50.1	369	62.3	12.2
079001500	214	46.3	172	57.6	11.3
079001600	511	33.5	358	47.8	14.3
079001800	149	54.4	138	58.0	3.6

Table 14. South Carolina Mailout/Mailback Return and Response Rates According to Tract (continued)

Tract Number	Mailback Housing Unit Count	Overall Response Rate	Occupied Housing Units	Overall Return Rate	Return/Response Rate Differential
079002001	1073	58.1	941	66.1	8.0
079002002	241	36.9	193	46.1	9.2
079002100	1591	58.7	1423	65.6	6.9
079002200	771	60.6	692	67.2	6.6
079002300	1077	76.2	1036	79.0	2.7
079002400	1536	70.9	1428	76.3	5.4
079002500	2048	67.0	1843	74.3	7.3
079002600	5027	56.4	4511	62.7	6.3
079002700	1947	62.7	1769	68.9	6.2
079002800	914	43.2	750	52.7	9.5
079010100	3628	56.0	3205	63.2	7.3
079010200	1751	62.7	1540	71.2	8.5
079010302	148	58.1	133	64.7	6.6
079010303	2989	63.5	2700	70.2	6.7
079010304	2806	59.1	2550	64.9	5.9
079010305	2384	71.3	2284	74.3	3.0
079010403	2938	48.4	2149	66.2	17.7
079010404	3445	43.7	2618	57.4	13.8
079010405	4347	43.1	3667	50.9	7.9
079010406	2148	54.7	1885	62.2	7.5
079010501	854	57.8	768	64.2	6.3
079010502	416	45.0	369	50.4	5.5
079010600	2605	46.5	2278	53.2	6.6
079010701	1204	49.4	1025	58.0	8.5
079010702	1173	58.1	1086	62.7	4.7
079010703	1494	61.2	1379	66.1	4.9
079010802	533	30.0	464	34.5	4.5

Table 14. South Carolina Mailout/Mailback Return and Response Rates According to Tract (continued)

Tract Number	Mailback Housing Unit Count	Overall Response Rate	Occupied Housing Units	Overall Return Rate	Return/Response Rate Differential
079010803	1037	59.4	928	66.2	6.8
079010804	1141	55.8	991	64.2	8.3
079010900	1070	46.3	945	52.4	6.1
079011000	741	54.1	620	64.7	10.6
079011101	1490	70.8	1404	75.1	4.3
079011102	1652	70.7	1537	76.0	5.3
079011201	1126	71.5	1003	80.3	8.8
079011202	1861	71.7	1755	76.0	4.3
079011301	3780	57.1	3278	65.8	8.7
079011303	1722	55.0	1525	62.1	7.1
079011304	2271	58.3	2049	64.7	6.3
079011305	2233	60.4	1953	69.1	8.7
079011403	2895	66.1	2583	74.0	7.8
079011404	1964	60.7	1796	66.4	5.6
079011405	3565	54.6	3062	63.5	8.8
079011406	4470	64.7	4232	68.3	3.6
079011500	1743	52.9	1533	60.1	7.2
079011603	1544	67.4	1405	74.0	6.6
079011604	2367	74.6	2247	78.5	3.9
079011605	3336	56.7	2960	63.9	7.1
079011606	1443	71.7	1379	75.1	3.3
079011701	1097	46.6	854	59.7	13.1
079011702	1237	50.8	1062	59.1	8.4
079011800	2303	51.8	1932	61.6	9.8
079011901	2329	60.2	2129	65.8	5.6
079011902	1966	58.5	1707	67.2	8.7
079012000	1641	51.7	1384	61.2	9.5
087030100	1110	62.6	965	72.0	9.4

Table 14. South Carolina Mailout/Mailback Return and Response Rates According to Tract (continued)

Tract Number	Mailback Housing Unit Count	Overall Response Rate	Occupied Housing Units	Overall Return Rate	Return/Response Rate Differential
087030200	1573	54.0	1304	65.0	11.1
087030300	2180	60.6	1939	68.2	7.5
087030400	2431	57.8	2042	68.7	10.9
087030500	786	67.3	732	72.3	5.0
087030600	501	63.9	461	69.4	5.5
087030700	1256	63.5	1145	69.4	6.0
087030800	552	62.7	516	67.1	4.4
087030900	616	68.7	569	74.2	5.5

Table 15. Return and Response Rates for Entire Update/Leave Portion of South Carolina Site

Mailback Housing Unit Count	Response Rate			Occupied Housing Units	Return Rate			Return/Response Rate Differential
	Short Form	Long Form	Overall		Short Form	Long Form	Overall	Overall
61218	50.1	37.1	47.8	52841	57.5	43.5	55.1	7.3

Table 16. South Carolina Update/Leave Return and Response Rates According to Tract

Tract Number	Mailback Housing Unit Count	Overall Response Rate	Occupied Housing Units	Overall Return Rate	Return/Response Rate Differential
023020300	211	30.8	189	33.3	2.5
023020400	765	43.9	689	48.6	4.7
023020500	1257	43.9	1093	50.2	6.3
023020600	1642	51.7	1479	56.9	5.2
023020700	690	49.6	625	54.6	5.0
023020800	1695	47.1	1512	52.5	5.4
023020900	951	46.3	795	55.1	8.8

Table 16. South Carolina Update/Leave Return and Response Rates According to Tract (continued)

Tract Number	Mailback Housing Unit Count	Overall Response Rate	Occupied Housing Units	Overall Return Rate	Return/Response Rate Differential
023021000	216	53.7	195	59.5	5.8
025950100	2740	46.1	2410	52.4	6.3
025950200	1363	45.3	1166	52.4	7.1
025950300	1024	47.9	872	56.1	8.2
025950400	2488	50.1	2142	57.9	7.8
025950500	1908	48.6	1705	54.3	5.7
025950600	1231	49.2	1104	54.6	5.4
025950700	1863	48.0	1610	55.3	7.3
025950898	942	42.7	816	49.3	6.6
031010100	1159	45.4	1032	50.5	5.1
031010200	1589	48.6	1352	56.9	8.3
031010300	468	44.7	391	51.9	7.3
031010400	1152	55.6	1063	60.1	4.6
031010600	509	44.4	453	49.0	4.6
031010800	815	47.0	719	53.1	6.1
031010900	1694	46.4	1439	54.6	8.2
031011000	134	49.3	120	54.2	4.9
031011200	292	44.2	249	51.4	7.2
031011300	806	43.1	709	48.5	5.5
031011500	1484	47.4	1331	52.7	5.3
031011600	1341	51.4	1188	57.7	6.4
039960100	843	43.1	696	52.0	9.0
039960200	1483	47.7	1283	54.9	7.2
039960300	2426	43.5	1723	60.4	16.9
039960400	1458	47.5	1286	53.8	6.3
039960500	1744	52.8	1579	58.1	5.3
055970100	425	58.4	353	68.8	10.5
055970300	951	24.6	342	65.2	40.6

Table 16. South Carolina Update/Leave Return and Response Rates According to Tract (continued)

Tract Number	Mailback Housing Unit Count	Overall Response Rate	Occupied Housing Units	Overall Return Rate	Return/Response Rate Differential
055970400	231	42.0	139	69.1	27.1
055790900	630	55.7	574	61.0	5.3
057011200	1352	49.7	1227	54.4	4.7
061980100	610	46.2	534	52.6	6.4
061980200	1210	50.2	1050	57.8	7.6
061980300	862	50.8	770	56.9	6.1
061980400	1385	53.7	1243	59.5	5.8
061980500	543	50.5	472	57.8	7.4
061980600	799	41.4	684	48.0	6.5
069960100	1472	41.1	1261	47.9	6.8
069960200	453	39.5	393	45.5	6.0
069960300	704	33.9	619	38.6	4.7
069960400	1008	39.6	883	45.0	5.4
069960500	932	35.3	788	41.4	6.1
069960600	770	43.6	667	50.2	6.6
071950300	1107	53.3	937	62.3	9.0
071950500	104	54.8	87	64.4	9.6
071950600	756	52.1	670	58.5	6.4
079010302	2951	66.7	2738	71.5	4.9
079010303	104	69.2	100	72.0	2.8
087030600	271	32.5	235	37.0	4.5
087030800	815	50.6	714	57.7	7.2
087030900	390	47.4	346	52.9	5.5

Table 17. Return and Response Rates for Entire Menominee Site

Mailback Housing Unit Count	Response Rate			Occupied Housing Units	Return Rate			Return/Response Rate Differential
	Short Form	Long Form	Overall		Short Form	Long Form	Overall	Overall
1964	40.6	32.4	39.4	1304	59.1	48.3	57.6	18.2